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THE JOURNAL OF THE ROYAL INSTITUTE OF BRITISH ARCHITECTS

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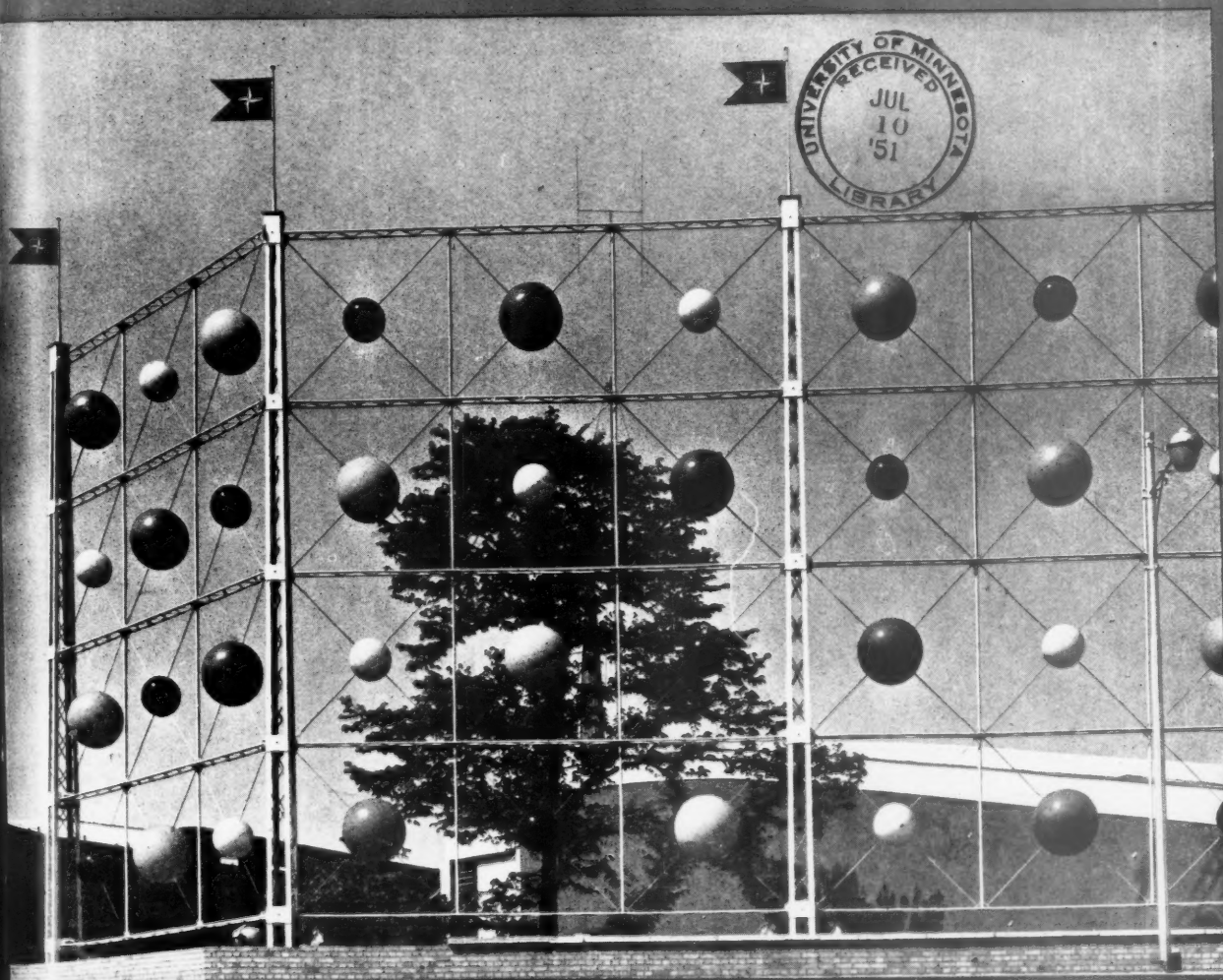

...on the South Bank Exhibition. Designed by E. D. Mills [F]. Photograph: Herbert Felton, F.R.P.S.

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THIRD SERIES VOL 58 NUMBER 8 : JUNE 1951 : 66 PORTLAND PLACE LONDON W1 : TWO SHILLINGS & SIXPENCE

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Birthday Honours

Among the Birthday Honours this year are the following:

G.B.E.: The Earl of Crawford and Balcarres [*Hon. F*] is made a Knight Grand Cross of the Order of the British Empire.

K.C.B.: Thomas Downing Kendrick [*Hon. A*] becomes a Knight Commander of the Bath.

Knights Bachelor: Gerald Barry [*Hon. A*] and Roger Duncalfe, Chairman, British Standards Institution.

C.B.E.: The following are created Commanders of the Order of the British Empire: C. H. Aslin [*F*]; F. Barraclough, Chief Education Officer, North Riding of Yorks; W. K. Brasher, Secretary, Institution of Electrical Engineers; Dr. F. Y. Henderson, Director, Forest Products Research Laboratory; R. T. Kennedy [*A*]; James Laver, Keeper of the Departments of Engravings, Illustration and Design, and of Paintings, Victoria and Albert Museum; Adrian Lynch-Robinson, Permanent Secretary, Ministry of Home Affairs, Northern Ireland; and Dr. Thomas Sharp [*L*].

O.B.E.: The following become officers of the Order of the British Empire: Robert Atkinson [*F*]; Walter R. Cowen, Immediate Past President, Federation of Associations of Specialists and Sub-Contractors; Miss Kathleen Harper, Mayor of Bath; Mark Hartland Thomas [*F*].

M.B.E.: F. M. Dean [*A*], of the Chief Architect's Division, Ministry of Works; Miss D. E. Soper [*A*].

Architectural Association Council 1951-52

The Council of the A.A. for the Session 1951-52 was announced on 31 May: *President*, Anthony M. Chitty, M.A., A.M.T.P.I. [*F*]; *Vice-Presidents*, A. R. F. Anderson [*F*], Hugh Casson, M.A. [*F*]; *Hon. Secretary*, the Hon. Godfrey Samuel, M.A., A.M.T.P.I. [*F*]; *Hon. Treasurer*, Bryan Westwood [*A*]; *Hon. Editor*, Peter Shepheard, A.M.T.P.I. [*A*]; *Hon. Librarian*, Anthony Pott [*A*]; *Ordinary Members of Council*, G. A. Atkinson [*A*], W. W. Atkinson, O.B.E. [*A*], J. M. Austin-Smith, M.C. [*A*], John Brandon-Jones [*A*], D. Clarke Hall [*F*], S. E. T. Cusdin, O.B.E. [*A*] (Past-President), the Hon. R. A. de Yarburgh-Bateson, M.A. [*A*], G. I. Goulden, T.D. [*A*], Miss Barbara Price, M.A. [*A*], Raglan Squire [*F*], Professor Basil R. Ward [*F*].

The President and the American I.A.

Mr. A. Graham Henderson, A.R.S.A., President R.I.B.A., and Mr. Michael Waterhouse, M.C., Past President, have been elected Honorary Corresponding Members of the American Institute of Architects.

The A.A. President 1951-52

Mr. Anthony M. Chitty, M.A., A.A.Dipl., A.M.T.P.I. [*F*], has been elected President of the Architectural Association. Educated at Eton and Trinity College, Cambridge, Mr. Chitty was for three years at the A.A. School of Architecture, becoming an Associate R.I.B.A. in 1933 and a Fellow in 1939. He has been a member of the R.I.B.A. Council in 1947, 1949, 1950 and 1951, and is Vice-Chairman of the Board of Architectural Education. He has served on the Council of the A.A. since 1946.

From 1932 to 1936 he was a founder member of the Tecton Group of Architects, but in 1936 started the firm of Hening and Chitty. The work of the firm includes airport terminals at Ipswich, Exeter and Inverness, Air Ministry Radio and Meteorological Station and Reserve Flying Training Schools, farm buildings, flats and housing schemes and factories. A large printing hall for the *Daily Mirror* is at present in hand, as well as sections of two New Towns. The firm are architects to Dartington Hall Trustees, for whom many buildings have been erected since 1936, and to the Rt. Hon. Lord Trent, for whom a Highland Cattle breeding station and other agricultural buildings have been built. In the Tecton partnership Mr. Chitty was concerned with Highpoint flats, Whipsnade, Dudley and London Zoos.

As Townplanning Consultant, Mr. Chitty has prepared development plans for Windsor, Farnham, and the Metropolitan Borough of Holborn. Under the 1947 Act, he has also prepared and published plans of Aylesbury and High Wycombe for Bucks County Council, whom he continues to advise on architectural matters.

The British Architects' Conference

No one seems able to remember when a Conference photograph could not be taken because of rain. At Belfast the sun again co-operated and did so in the fullest measure by providing the Conference with four days of perfect weather. With this advantage, interesting papers, excellent organization, warm hospitality by the Royal Society of Ulster Architects and the beautiful scenery of Northern Ireland, all combined to make a memorable Conference. Visitors from England and Scotland who crossed the Irish Sea, the members of the R.S.U.A. and a small but lively contingent from Eire made up a total of 410 and at the end there was complete unanimity about the great success and value of the Conference.

The R.S.U.A. set about the celebration of their jubilee in this Festival year in no niggard spirit. They staged in a blitzed building in the centre of the city an excellent public exhibition of work by their members and of modern architecture in general. This was the work of a team of six members whose labours must have been Herculean in clearing the ruins, converting the building and staging the exhibition. Local manufacturers co-operated by giving or lending materials and equipment. The Conference committee persuaded the B.B.C. to allow two talks on the Northern Ireland wavelength, one on the Conference itself and one on the exhibition. They also provided each member with a beautifully bound copy of the R.S.U.A. centenary yearbook, a Conference handbook and a handbook of the exhibition. Visiting members will certainly wish us to express their warmest thanks to the architects of Northern Ireland for their hard work and hospitality.

Among the many good features of the Conference we may perhaps single out four for special mention. The informal reception on the first night was all that such receptions should be, the babel of cheerful talk reducing the efforts of the band to purely background music. The garden party given by the Government of Northern Ireland in the grounds of Stormont Castle, attended by the Prime Minister, was in a lovely setting and most enjoyable. Outstanding among the many interesting tours was that to Mountstewart where the guests were entertained to tea by the Dowager Marchioness of Londonderry. Finally, there was the dance on the last night at which a lavish 'buffet supper' quite belied its name.

Even if the speech of one member at the meeting in the Assembly Buildings was almost drowned by the great clock striking noon, preceded on the bells by the quarters and followed by no less than three hymn tunes, the papers and discussions at the formal proceedings were of high quality and well worth hearing.

Exhibition at County Hall

Another off-shoot of the Festival is to be found at County Hall. Perhaps few visitors to the South Bank exhibition will stop to wonder what the site was like in olden days, but those who are interested in such matters will be fascinated by the exhibits that have been collected by the London County Council and are now on view at County Hall. The display includes articles either lent by residents in the neighbourhood, or found during excavations there, ranging over the 1900 years that have passed since the Romans came to Britain. Apart from the exhibits themselves, the manner of their display is commendable, as they are arranged in wood-framed box panels of uniform design, internally lighted and hung on sectional metal frames that can be jointed together and arranged in a straight line or at angles to each other.

The exhibition is divided into eight sections: general development, social framework, river, literature and drama, schools and hospitals, industries, personae, and children's drawings and models. Maps, models and pictures give an idea of the environment of those who used the pottery, jewellery, coins and other articles that are on view. William Morris bade us 'forget six counties overhung with smoke' and suggested that we dream of 'the clear Thames bordered by its gardens green', and perhaps his advice can be better followed in the L.C.C. exhibition than outside it.

Exhibition 'A Hundred Years of British Architecture 1851-1951'

At the time of writing, the collection of material for this exhibition is well advanced and some notable exhibits are arriving at the R.I.B.A. Among these are perspectives and photographs which have been hanging on the walls of architects' offices or hidden away in archives for many years. The Manchester Corporation have lent two superb perspectives of Alfred Waterhouse's City Hall; there are drawings by Sir Gilbert Scott (or by his office) of St. Pancras hotel, including a perspective of the dining room, lent by Mr. C. M. Oldrid Scott [*F*]; a set of very early photographs taken between 1855 and 1860 illustrate the building of Deane and Woodward's Oxford University Museum and have been lent by the Museum; the drawings produced by the R.I.B.A. Library include St. Augustine's Church, Kilburn, by J. L. Pearson, St. Clare's Church, Sefton Park, Liverpool, by Leonard Stokes, and Sir Ernest Debenham's house by Halsey Ricardo. The A.A. have lent an enormous aerial perspective of Street's Law Courts. Most buildings, however, are illustrated by photographs. The exhibition begins, of course, with the Crystal Palace and ends, appropriately enough, with the Dome of Discovery.

The Earl of Bessborough will perform the opening ceremony on 11 July and the exhibition will be open to the public from 12 July to 4 September (Monday to Friday, 10 a.m. to 6 p.m., Saturday 10 a.m. to 5.30 p.m.). A special exhibition handbook is being prepared, designed to illustrate the period. There will be 50 buildings illustrated and articles specially contributed by Mr. H. S. Goodhart-Rendel [*F*], the Hon. Lionel Brett [*A*], Professor W. G. Holford [*F*], Dr. Ronald Bradbury [*F*], Mr. Lance Wright [*A*], and Mr. Eric L. Bird [*A*]. Every architect should make a special point of seeing this exhibition and the handbook will be worthy of a permanent place on his bookshelves.

'Architects' Guide to the Festival of Britain'—the Festival Church

The Festival of Britain is an intractable thing to write about. It is so nation-wide and takes so many forms, that just when one thinks one has its main manifestations well and truly pinned down, something else creeps up on one from behind! The difficulty is, of course, made greater by the usual editorial cry of lack of space. But one thing we feel we should have mentioned in our 'Architects' Guide to the Festival of Britain' in our May issue is the Festival Church of St. John the Evangelist, Waterloo Road.

The restoration of this Church, which was unroofed and severely damaged in 1940, was undertaken at the instance of the Festival Committee, to serve as the Festival's religious centre. The service of re-dedication was held on 26 April, in the presence of Her Royal Highness the Princess Elizabeth, and the church was in fact the first of the Festival buildings to be completed.

The original church was one of those built at the end of the Napoleonic wars, out of money voted by the Government of the day for that purpose. The architect, Francis Octavius Bedford, designed it in the then fashionable Greek Revival manner. Now the church has not only been restored structurally but also redesigned internally. The new roof is of steel construction, covered with copper; the ceiling is in fibrous plaster, the panels being covered with acoustic material. The plaster reredos behind the altar is a reconstruction of the original one. The architect is Mr. Thomas F. Ford [*F*].

Northern Ireland Housing Medals

The awards in the Housing Medal competition promoted by the Ministry of Health and Local Government in Northern Ireland for the Festival year are: Premier award: Northern Ireland Housing Trust's scheme at Cregah, Belfast; architect: T. F. O. Rippingham [*A*]. Award for the best privately-built scheme: Douglas Haig Memorial Homes, Mount Merrion Avenue, Belfast; architect: L. C. Powell [*F*]. Special award: Belfast Corporation's scheme at Edenvale, Belmont; architect: R. S. Wilshere [*F*]. The Awards Committee reviewed 42 schemes.

The Annual Reception

Once more, on the night of Friday 18 May, the R.I.B.A. building took on its festive look for the Annual Reception. The flowers were banked and the lights shone. And once more the 800 or so members and guests appeared to enjoy it all immensely. After being received by the President, Mr. A. Graham Henderson, A.R.S.A., and Mrs. Henderson, they went on to enjoy the dancing, the two pianoforte recitals by Miss Michal Hambourg, the exhibition 'Escape from Architecture' in the Library —and, of course, the pleasure of meeting and talking to friends.

Among the distinguished guests were the Rt. Hon. the Lord Mayor of London, Sir Denys Lowson, Bart., and the Lady Mayoress; the Rt. Hon. Philip Noel-Baker, Minister of Fuel and Power; the Rt. Hon. John Dugdale, Minister of State for Colonial Affairs, and Mrs. Dugdale; the Rt. Hon. Clement Davies, K.C., and Mrs. Davies; Sir Philip Hendy, Director of the National Gallery, and Mr. J. K. M. Rothenstein, C.B.E., Director of the Tate Gallery, and Mrs. Rothenstein.

The President and Mrs. Henderson at the Annual Reception with the Lord Mayor of London Sir Denys C. F. Lowson, Bart. and the Lady Mayoress, Lt.-Col. Alderman and Sheriff G.T.Cullum Welch and Mrs. Cullum Welch and Mr. Sheriff Percy T. Lovely and Mrs. Lovely.

The Study of Science in connection with Architecture

The Council have decided that advantage would be gained by an overhaul of the Institute's machinery for the study of scientific matters in connection with architecture, with a view to bringing the Council more closely into contact with activities in this sphere. To this end it has been decided to dissolve the present Architectural Science Board with its semi-autonomous and independent status, and in its place to constitute a Science Committee. The Committee will consist of a slightly smaller number of members who will meet at more frequent intervals and maintain closer relations with the Executive Committee and the Council by means of the normal system of reporting on appropriate matters after each meeting. The Science Committee will co-ordinate the activities of certain sub-committees entrusted with special tasks. It is the desire and hope of the Council that the services of a number of distinguished non-members which have proved of such value in the past will still be available on the new Science Committee.

By identifying themselves more closely with the study of science through these new arrangements, the Council hope that the paramount importance of science in the study and practice of architecture will be kept more prominently in the view of members of the Royal Institute.

Harlow New Town Exhibition

The Harlow Development Corporation have staged an exhibition illustrating both completed buildings and future works at Harlow New Town. It is intended for architects, town planners, engineers and other technicians and explains how the Harlow project is developing in practice. The exhibition is in four parts. Mark Hall (North) Neighbourhood is under construction and several houses are open for inspection. The Tower Flat Block and various dwellings are used as 'live' architecture illustrating the use of space standards and methods of construction. The flat roof of the Tower Block is used as a viewing terrace with maps, models and pointers, so that the visitor can study the grouping and landscaping. The top floor houses an exhibition showing the organization.

Harlow is reached from London by train from Liverpool Street Station, by Green Line coach 720 from Aldgate Coach Station or by Green Line coach 718 from Marble Arch, changing at Epping Garage.

Westminster Abbey Chapter House restored

The Ancient Monuments Department of the Ministry of Works have completed a two-year restoration of the Chapter House of Westminster Abbey. Built by Henry III in the middle of the 13th century, it was used as the first House of Commons until 1547. Later it was degraded to a records store, the vault being taken off and floors inserted. Sir Gilbert Scott restored it in 1866, providing a new vault and doorway. During the blitz a bomb in New Palace Yard destroyed most of the glass and damaged the structure.

The restoration is notable for a fine scheme of stained glass windows designed by Miss Joan Howson and made in her workshops. The Victorian glass had been very dark and Miss Howson's decision to let in abundant light has proved wise. The fine proportions and large scale of the interior are now much more apparent and one can study the 14th century mural paintings and 13th century tiled floor with ease. In three of the windows some of the old glass panels have been reset in lightly tinted glass and in three others Miss Howson has placed the arms of Royalty, Benefactors, Ecclesiastics, First Commissioners of Works and Architects, including those of Wren and Scott. The seventh window (the eighth is blind) contains full length figures of three kings and two queens of England, all Victorian glass with some restoration.

This restoration is a good example of the skilful work of the Ancient Monuments Department. It is faithful without being pedantic, but also imaginative without being anachronistic.

S.P.A.B. Course on Repair of Ancient Buildings

The course of lectures and visits on the repair of ancient buildings held recently by the Society for the Protection of Ancient Buildings —a preliminary announcement of which appeared in the February JOURNAL—was both instructive and enjoyable. Applications greatly exceeded the accommodation available. Those attending included many diocesan surveyors, architects from local authorities, private architects and qualified students. The organization was excellent and the Society are to be congratulated on their enterprise. It is to be hoped that they will arrange similar courses in future because this one has shown clearly that there is a demand in the profession for the special kind of knowledge which the Society is well qualified to impart.

The British Architects' Conference, Belfast, 1951. The Inaugural Meeting

Held at the Assembly Buildings, 31 May 1951

The President in the Chair

The Deputy Lord Mayor, Councillor W. E. G. Johnston: Mr. President, Ladies and Gentlemen, it is very early in the morning to make a speech and far too early to have to listen.

May I in the unavoidable absence of the Lord Mayor, who has two appointments this morning which clash with this, carry out the very pleasant duty of bidding you welcome to Belfast, capital city of Northern Ireland. May I wish your Institute continued success and may I express the hope that you will take away with you the very happiest of memories of your visit here.

The President, Mr. A. Graham Henderson, A.R.S.A.: My first and pleasant duty, my Deputy Lord Mayor, is to express my own and this Conference's sincere thanks for the cordial welcome you have given us to the City of Belfast. To those of us who come from across the Irish Sea and are reasonably good sailors or flyers there is always in coming to Ireland that special thrill which can not be got from railway or motor travelling. Some of us have visited Northern Ireland before, but whether we have or have not done so we now come in the confident knowledge that you have much of interest to show us and your traditional generous hospitality to offer us.

This is the first time the British Architects' Conference has been held in the capital city of Northern Ireland, and it is particularly appropriate that it should be held here this year as it is the Jubilee Year of the Royal Society of Ulster Architects, which was founded fifty years ago and which, I need scarcely remind you, has been allied to the R.I.B.A. and represented on the R.I.B.A. Council since 1923. I am sure that this Conference will wish to extend to the Royal Society of Ulster Architects its congratulations on this notable year.

I would like also on behalf of the Conference to thank the President, the Council and all those other members of the Society who have made such admirable arrangements for our instruction and entertainment at this Conference. It is very fitting that Mr. R. H. Gibson should be the Society's Jubilee President; twice already Mr. Gibson has held the office of President, and no one has worked harder to further the objects of the Society and the interests of the profession in Northern Ireland.

In addition to the hospitality which your City, my Deputy Lord Mayor, is giving us, we have been offered and have accepted the hospitality of the Government of Northern Ireland. A Garden Party will be held at Stormont this afternoon.

It is not possible for me at this time to thank individually all those others who are going to entertain us during the various tours and visits which we will be making, nor those who have been responsible for all the arrangements in connection with the Conference, but I know that I can on your behalf express our very keen appreciation of their kindness and the work which they have done, and are doing.

I note that in our programme the brief remarks which I have to make at this time —and I can assure you they will be brief— are given the rather inflated title of 'Inaugural Address'. I have no intention of inflicting on you anything so formidable, though I am well aware that similar gatherings to our own, representative of political, trade, or other interests are made the occasion for declarations of policy, clarion calls to action and even demands for higher remuneration, many of which are promptly and widely publicized and as often promptly forgotten!

The architectural profession is somewhat different from organizations such as I have referred to. In certain ways it is unique, as in addition to the strictly professional services it offers to the public its members, as individuals, are—or should be—creative artists striving not only to spend their clients' money efficiently and prudently, but also to make permanent contributions to the beauty of towns and countryside.

As you are aware, we are protected as a profession by the Registration Acts which at the same time put responsibilities on us for the protection of the public. I think it is fair to claim that the benefits both to the profession and to the public of the Registration Acts are due to the initiative and energy of the R.I.B.A. and its Allied Societies and that these bodies can still claim to be the paramount and representative institutions influencing the progress of our profession.

While the R.I.B.A. is not uninterested in the artistic activities of its members and does in fact offer encouragement to high artistic effort, its major preoccupations are concerned with the professional side of architects' activities. There are three major points which interest the R.I.B.A.: first the education of the architect for his profession; secondly, the relationships between members of the profession; and, thirdly, the relationships between members of the profession and the public. These are the foundations on which the R.I.B.A. has grown and extended its influence, and as the result of which we believe the profession can claim the support of the community and the individual architect the respect and confidence of his clients.

The R.I.B.A. is a non-political body and has always, and will always I hope, with strict impartiality assist to its utmost the Government and local authorities to implement their commitments to the public. We from Great Britain are quite certain that our professional brethren in Northern Ireland act in a similar manner. It is probably unnecessary for me to add that in our art activities we know no political or even international boundaries, and in this connection it is very pleasant to know of the presence of distinguished architects from Southern Ireland.

I referred to the fact that I will be brief and that I have no intention of making a propaganda speech, but I think I would be failing in my duty if I did not emphasize and leave with you one particular thought —or I might even say slogan—to represent our aspirations as a profession. I would summarize it in the one word 'quality', and I associate it on this occasion with what is still the outstanding problem of our country and our profession, namely, 'housing'. We all know the distressing problem that confronts every great city, namely that of the slums, a legacy of unconsidered development, and something that we must guard against for future generations. We know that quantity is important in the provision of housing, but I am sure you will agree with me that quality is of at least equal importance. It needs no words of mine to prove that anything less than the best quality of design, construction and layout will be the potential slum of the future. This is a challenge which I believe only our profession can meet, and I think we are meeting it in spite of the shortage of suitable materials and other difficulties of which you are all fully aware.

It is a tremendous encouragement to us as a profession that our respective Govern-

ments should have recognized the importance of 'quality' in housing by the award of medals for the best schemes in the various regions of England and Wales, and also Northern Ireland, but the main significance of this recognition is that it is now realized that without 'quality' we are in grave danger of re-creating the same problems which have cost and are costing us such enormous effort to solve.

Mr. R. H. Gibson [*F*], President of the Royal Society of Ulster Architects: I am greatly honoured this morning in being asked to propose a vote of thanks, not only on my own behalf but on behalf of this company assembled here, to our President for his address.

Might I say, as President of the local Society of Architects, how privileged we are in having the R.I.B.A. in Belfast for the first time. This is a very notable occasion so far as we are concerned. As you have heard the President state, it is our fiftieth anniversary and I hope and trust that you will see fit some time in the future to pay us another visit.

We, as an Allied Society are, I think, of some service to the R.I.B.A. We are upholding the dignity of the profession here in Northern Ireland and we regard ourselves as a fairly important body because we are different from the ordinary—if I may use the expression—Allied Society in England in the sense that our city is the capital of this Province. We have a direct association with the Architects' Registration Council and, naturally, we are actively engaged in the interests of the profession of architecture.

We are to have a paper from Mr. Martin Briggs on *Architectural Education*, and on that topic I could talk perhaps for as long as Mr. Briggs will talk because I have been working with my colleagues here to get established a chair of architecture. We have no chair of architecture here and we have to send our young students to Liverpool or Manchester or the Architectural Association or to some other school, and we feel that perhaps with the influence of our Deputy Lord Mayor we shall attain our goal in the near future.

I have the greatest possible pleasure on behalf of myself and the company assembled here to move a hearty vote of thanks to our President for his address.

The President, Mr. A. Graham Henderson, A.R.S.A.: You will note that of the three major points in which the R.I.B.A. is interested I placed first the education of the architect for his profession, and it is therefore appropriate that the first paper which is to be read to this Conference is one on that important subject and it is to be given by Mr. Martin Shaw Briggs, the Honorary Secretary of the R.I.B.A. I am sure you will agree that there is no one better fitted than Mr. Briggs to give such a paper. He is the immediate Past-Chairman of the Board of Architectural Education, and before his retirement rendered signal service to the Ministry of Education of the United Kingdom as one of His Majesty's Inspectors. I have very great pleasure in calling upon Mr. Briggs to read his paper.

Architectural Education

By Martin S. Briggs [*F*], Honorary Secretary R.I.B.A.

Read at the British Architects' Conference, 31 May 1951

The President in the Chair

THE INSTITUTE, having been invited to provide a paper on 'Architectural Education' to open this Conference, called on me—as its Honorary Secretary and maid-of-all-work—to get busy with it. You must not expect a high degree of polish as a result of my labours, though I will do what I can with my little mop to brush a few spiders and cobwebs out of the dark corners.

But what a topic to choose for a May morning! Surely it must be worn threadbare by now? At intervals, for at least thirty years back, it has aroused a constant stream of reports, leading articles in the professional Press, pamphlets, letters from peevish architects and students, lectures, discussions, and what not. Why all this fuss, and why does it continue so persistently? What is the matter; if, in fact, anything is the matter?

Well, I am not going to inflict a sermon or homily upon you, still less a special prescription for any local needs Belfast may have. This is not the occasion for such things. All I can do is to offer a few friendly comments on the position as I see it today after a long and intimate contact with the problem.

In dealing with it, I am puzzled why students, as a class, have taken so prominent a part in recent criticism. So far as I can ascertain after enquiry, this phenomenon is peculiar to our profession. I can say nothing about theological students, but there seems to be no comparable movement among students of law, medicine, surveying, accountancy, or the various branches of engineering. It seems to be endemic among architectural students, varying in virulence as between schools but not confined to any one type of school. Is it something to do with the artistic temperament, or what is the psychological explanation? Frankly, I do not know, but I should like to know. Has it any political origin or any political significance? Again, I can not say.

But there it is, and one wonders whether it is a good thing or not. In theory, it should be a very good thing that students should display such interest and enthusiasm about their studies and their curriculum. There is a feeling of deadly earnest about it. It is not merely high spirits, and youthful impatience with all constituted authority. If it were, one could laugh it off. A venerable professor entering his lecture-theatre and finding his person caricatured on the blackboard, or the same man reading a merciless or even cruel lampoon in the students' magazine, may well feel embarrassed or hurt, but that sort of thing often occurs and will continue to occur.

There should be a students' society of some kind in every school of architecture, and it should be a vehicle for suggestions to the authorities. If the students can suggest improved methods of lighting in the lecture-rooms, better facilities for this and that, adjustments in the time-table for the sake of convenience, their advice may be welcome and helpful. It is when they claim to influence or dictate the curriculum, the direction of the school, the trend of the teaching, the qualifications of the staff, that their status comes into question.

In preparing this short paper, I have tried to read everything published, not only by students but by older members of the R.I.B.A., about architectural education during the past five years or so. I have not gone further back, because the Institute produced in 1946 the long Report of its Special Committee on Architectural Education, dealing with the question in great detail. The Committee was a large and representative one, and its deliberations lasted all through the war. It held thirty-five meetings. Its conclusions were duly considered by the Council, and subsequently modified in some respects; but, generally speaking, it still represents R.I.B.A. policy, though that policy continues to be open to reform and somewhat fluid. It would be presumptuous on my part to offer any pontifical opinion on that weighty report: it should be sufficient to say here and now that, in the main, I do agree with it. (So now you know where I stand, for better or for worse.)

In 1948 the R.I.B.A. published in full the Report of the Architectural Science Board on 'The Teaching of Construction', a sequel to the same Board's report on 'The Place of Science in Architectural Education' (published in 1940). Of those two formidable documents I will only remark that they were, to use a hideous word favoured by elderly leader-writers, 'unexceptionable': that is, that there is nothing the matter with them, though they would have been more readable and useful if they had been half their length. But they have received careful attention.

Towards the end of 1948 a storm suddenly blew up from the left (not politics!). MARS (Modern Architectural Research Group), in collaboration with the Architectural Students' Association, issued a first instalment of a long report on architectural education. (I have never yet seen the promised later instalments.) This interim Report consisted of a historical survey, followed by elaborate statistics from which the deduction was drawn that the R.I.B.A. was far more interested in the

students of the Recognized Schools than in candidates who took its external examinations; that, in fact, the latter group far outnumbered the former; and that—to put it bluntly—the R.I.B.A. did not care a hoot (or 'tinker's cuss') about their education, which they acquired as best they could in the highways and hedges. This Report had a splendid Press. It would. It was welcomed by every man who had a grudge against our poor old Institute, and the statistics were swallowed whole—even greedily. It all made excellent 'copy'.

The R.I.B.A. at once took up the implied challenge, and within two months published in their JOURNAL (Vol. LVI, January 1949) full corrective statistics to prove that the MARS figures were both inaccurate and misleading, thereby rendering the sensational deductions made from them completely invalid. As Chairman of the Board at that time, I was convinced of the reliability of the revised statistics; although, not having had the advantage of training in a Recognized School, I can not be accused of having any bias in that direction.

This brings me to what is, I think, the main point of my paper, namely, the present relation of our Institute to the Recognized Schools on the one hand and to the external students on the other. I believe from what Mr. Gibson said that this question is likely to be of special interest in Belfast in the near future.

The first *full-time* day course in architecture started at Liverpool University in 1894, was soon followed by others in London and elsewhere. Recognition for the first three years (that is, up to the Intermediate stage) was awarded to Liverpool and to the Architectural Association School in 1920, to the Bartlett School of London University in 1921, and to Manchester University in 1922. The same privilege has been accorded to many others since then; and now the score, excluding schools overseas, stands at twenty-four in Great Britain and one in Eire. Of these, eighteen have obtained Final Recognition for their five-year courses.

These Recognized Schools are of various types. Some form departments of universities, others of art schools, others again of technical colleges or polytechnics, and two are independent of academic or municipal control. This diversity of type is healthy, and the R.I.B.A. has resolutely declined to favour any one type (although it has often been pressed to do so), relying on its Board to see that uniformity of *standard*—not uniformity of *organization*—is preserved as between the different types. The staff and students of each type are always prone to argue that theirs is 'the one and only'; but, in fact, it is possible to find advantages and disadvantages in each type.

A university school, at first sight, appears to have certain obvious advantages over all the others. It should be able to provide excellent social and cultural contacts, even if it does not possess residential facilities. The Senate should be able to exercise a beneficent control over its curriculum, preventing eccentricities and discouraging wild experiments. A university can often provide links with a faculty of fine art on the one hand, and with science and engineering on the other. The very name implies a broad outlook. Nevertheless, it may be donnish and academic, confined to its ivory tower, bound by archaic and cumbrous regulations, oblivious of modern needs, and distrustful of technical specialists. Its professors, when invited to provide a few lectures on their own particular field, tend to offer long courses instead, so that architecture is squeezed out to almost nothing.

A municipal school of art provides contacts with other artists of all types, and—whether you admit it or not—an architect *is* an artist. There is or should be, something inspiring and exciting about working in an art school. Conversely—you will notice I have got 'conversely' in every one of them—the social and cultural atmosphere is often very narrow and specialized, and facilities for study in the structural and scientific side of the curriculum are often inadequate.

These particular facilities are usually more satisfactory in a technical college or a polytechnic, particularly if the institution possesses a building department. Work in such colleges is often more realistic and practical than in either of the two types I have just mentioned, but there is always the danger that it may be too realistic, too near the ground, and may thus lack inspiration. Both technical colleges and art schools are municipally controlled; this fact ensures their financial stability, but may entail irksome interference by busybodies and officials, which the teaching staff is apt to resent.

Independent schools have the merits and defects of their autonomy. They are free to experiment, to adopt pioneer methods, to make quick and frequent changes of policy. Many of the best and most vigorous features of architectural education are derived from this source. 'The dead hand of officialdom', as it is sometimes called, hardly touches them in their work, which is often excellent. But this very freedom is liable to become licence. The steadying hand of the Senate or the City Education Officer is never there to clap on the brake, or to prevent amateurs in education from making mistakes that have been made in other fields long before. Moreover, financial stability is only maintained by charging high fees to students.

Nevertheless, one can not generalize by types of school. Any particular school from any one of the four categories I have mentioned may be a 'rogue' school—that is Mr. Goodhart-Rendel's favourite word for one that does not conform to type—and may possess virtues or defects usually associated with another type. It might be fair to say that architectural schools in Britain today, so far as I have seen them, usually have more in common with each other than with other faculties or departments of larger institutions of which they form only a section.

The quality of life in a Recognized School depends to some extent on both physical and cultural environment. By 'physical environment', which I think is the accepted term for our town planners, I mean the buildings occupied by a school, their equipment and their surroundings. Inevitably, schools of architecture are situated in large towns or cities, and generally near the centre. For reasons of convenient access that is necessary, and hence too many of them occupy shabby premises in squalid streets with hardly a tree in sight. That is deplorable, especially for budding architects, and is in glaring contrast with the palatial quarters envisaged for architectural schools in some recent students' competitions; but under present economic conditions one can not hope for a speedy cure of this sad defect.

'Cultural environment' is more difficult to define, and depends, as I have already suggested, on the type of institution. Even in some universities, I have noticed that architectural students tend to 'keep themselves to themselves', which is a pity; for by so doing they miss those wider contacts that form so unique and attractive a feature of University life. Even from a strictly worldly point of view, such contacts are 'useful' as well as pleasant.

So far as one can generalize about Recognized Schools as a whole, two main criticisms are heard, often from people who know very little about them or who, for some reason, are jealous of them. The first is that they are given an unfair advantage by the R.I.B.A. in their internal examinations, which—being mainly conducted by the teaching staff—favour their own students and are below the standard of the more difficult and far more impartial external examinations. It is not my view but it is a criticism. (I have often heard precisely the opposite allegation made by teachers in Recognized Schools, who claim that their External Examiners prevent favouritism and are a complete safeguard of standards.)

The second charge is that a student, on leaving a Recognized School after five years, generally makes an incompetent assistant in an office, that he is conceited as well as utterly ignorant of practical matters, and that he is not worth the extortionate salary he demands. (I have heard all this dozens of times.) The implication is that the Recognized Schools are unable or unwilling to accept the facts of life, that the teachers have their heads so much in the clouds that they neither know nor care what goes on in the ordinary architect's workaday world, whether in private practice or in official employment.

Many of these strictures are either untrue or unreasonable, and the implications need not be accepted. During a five-years' full-time course a student *should* learn something more than elementary building construction, he *should* have an opportunity to spread his wings (if any), and he *should* be trained as a potential architect rather than a permanent hack. But, in spite of this confession of belief, I also think that some of the schools could do more than they are doing in preparing their students for entry into a very harsh and unkind world. There is hardly anything that one learns in an office that can not be worked into a five-

years' curriculum, though there are many desirable things in a five-years' curriculum that one seldom encounters in the average office, public or private. By setting less ambitious programmes of design in the later years of the course, and by devoting more attention to working drawings and details of small buildings, the schools could dispose of these hostile criticisms.

Most of you must have been asked frequently by anxious parents whether architectural training is more effectively obtained in a Recognized School or as a pupil in an office. Many years ago, at an Annual Conference like this, I heard a prominent member of the Institute—after an extremely good lunch—make a speech in which he denounced architects who took pupils as criminals, or something like it. Well, it *had* been a good lunch, and certainly that speaker was not voicing the official view of the R.I.B.A. For my part, if I were asked that question, I *should* recommend a Recognized School, if there happened to be one within reach, geographically and financially. But I certainly should not condemn the pupilage system, root and branch, as something completely outmoded. There are some architects' offices to which I would sooner send a son or daughter (it is grandsons in my case) than some Recognized Schools, and that not entirely for architectural reasons. I should have some regard for the atmosphere of the school—and by that I do not mean simply social status. I mean that the atmosphere should be healthy, and the products of the school should be sane and civilized people, not cosmopolitan cranks with one-track minds.

I personally had two years' full-time training at a University before taking my Intermediate, and then three years' pupilage in an office, after which I took my Final. Some people today still favour that solution or some other form of 'sandwich course', as it is called, and it has its points. I owe it to the memory of my chiefs, now both dead, to say that they treated me very well as a pupil, and gave me time off—I think it was two afternoons a week—to attend an Art School. For the rest, I relied on private study; but for my weakest subject, Stresses and Strains, I took a correspondence course under a firm of coaches, F. R. Farrow and Banister Fletcher. During those years I received much friendly help and kindness from senior members of the local Allied Society—that was in Yorkshire—attended all its meetings, and competed for its various prizes.

What I missed was any serious systematic training in *design*, and that was a really serious lack. I can not see how any ordinary private architect's office can supply that; but nowadays it can be obtained in evening classes or part-time day classes at many schools which are not recognized as well as at many that are. It certainly takes longer that way, but it *can* be done.

Undoubtedly an articled pupil sees more of the sordid routine-work of architecture in an office than he could do in a school; but if the office is a large one he will only see a corner of the practice and very little of the actual procedure; that is all done far above his head, by 'the boss', or by a manager who deals with the business side of things. It is most unlikely that he will ever overhear an interview with a client, and he may never be sent out on a job. A small private office gives him a far better insight into such matters than a large one. As for a public office, I just do not know how a junior manages to learn much about practice or procedure there, even in some of those enlightened municipal offices where the staff is organized in groups or teams, each undertaking a specific job. So much depends upon the personality of the chief, at any rate in the case of a private practitioner, that comparison between pupilage and a Recognized School can not be very useful.

Speaking for myself, but also, I believe, for many other people, I do not favour early specialization, or any differential type of training as between potential private practitioners, potential assistants in their offices, and potential public employees. I can not believe that anyone can forecast, either at the beginning or at the Intermediate stage, what is likely to be a student's future. So I continue to accept the hackneyed theory of 'the field marshal's baton'.

Some men blossom late, some have unexpected opportunities which can only be regarded as flukes or good luck; and one takes a very grave responsibility in assuming that a youth of 18 or 19 will never have such luck, that he will not blossom late—look at Winston Churchill!—and that he must be marked down for ever as a wage-slave. I have read too many biographies of successful architects to be able to take that view! The student should be trained, I maintain, *as an architect* and nothing else.

Turning now to the non-recognized schools, the R.I.B.A. has recently subdivided them, not very euphoniously, into 'Listed Schools' and 'Facilities Schools'. The former category comprises schools which, while not granted the exemption enjoyed by Recognized Schools, do provide a fairly comprehensive *full-time* curriculum. Thus they form an alternative to Recognized Schools for *full-time* students, not for articled pupils, though they may also provide evening and part-time day classes for such pupils. The 'Facilities Schools' are so called because they provide reasonably comprehensive facilities in evening and part-time day courses, and are able to help articled pupils and others very considerably. Then, besides the 'Facilities Schools', there are many others where a measure of education is obtainable in evening classes, certainly better than nothing; and, finally, there are correspondence courses run by private individuals or firms.

Students from all these sources, except the Recognized Schools, take the R.I.B.A. external examinations. The Institute is sometimes accused of being too conservative in its policy of restricting the number of Recognized Schools to a couple of dozen for all Britain, and those confined to the cities and largest towns. That policy is, however, common to other professions, and it seems to me quite sound. The award of recognition confers great privileges and great responsibilities on a school: it should not be handed out too freely. Moreover, an architectural school can not function effectively, or be able to maintain an adequate staff, unless it has a substantial group of students in each year of the course. Since the war, all schools of all grades have been flooded with students whose training is in arrears and is being paid for by the State. Even now it is impossible to foresee exactly what are likely to be the so-called 'normal' numbers in each school.

It is ridiculous to suggest that the Institute holds the balance unfairly between the Recognized School students and the others. It is also unjust to assert that it is neglecting those students who happen to live in remote places, by failing to provide courses of study in every small market-town. Such provision forms no part of its duties. It is the responsibility of the local education authority, which pays the bill. Where there is a reasonable demand in any town, justified by numbers, the Allied Society concerned can usually exert pressure on the authority to have classes started. It can encourage its member pupils to attend, it can watch over and guide the classes; but remember, small classes are always expensive and often inefficient! (I should have said earlier that the help, support and advice of architect members of the Allied Societies is absolutely essential to the efficiency of all schools of all types, even in the large universities.)

But, when all is said and done, isolated students in remote corners of Britain can not all be catered for by classes; so either they must move to a neighbouring town, claiming if possible a grant from the local authority; or they must take a correspondence course; or, if they prefer it, rely entirely upon the old-fashioned Victorian gospel of 'self help'.

In conclusion, I will offer a few comments upon some current problems of architectural education. Almost the only substantial criticism that one hears from 'leftish' quarters of the existing curriculum relates to the teaching of the classical 'Orders' and to the setting of so-called 'period designs'. Frankly, both of these are out of fashion, but how far should adult and responsible people in positions of authority be influenced by ephemeral fashions? There are two arguments at least in favour of continuing historical studies, including the study of the Orders.

The first is that architecture is and always has been a plant of slow growth, with its roots firmly embedded in tradition; and that study of its evolution is valuable, even in modern practice. Besides, if we admit that there is any such thing as a science of æsthetics, that 'proportion' and 'scale' mean anything at all, how can we exclude some study of masterpieces of the past from the scheme of visual training? Many of our most successful and original young designers have undoubtedly benefited from

their strict training in classical architecture.

Secondly, an architect's ordinary practice comprises much work besides designing new buildings: it involves the extension or modification of old ones, whether they be mediæval churches, Jacobean mansions, or Georgian terraces. Such work can not be handled sympathetically or even competently without a full knowledge of the historical styles. A special post-graduate course in the conservation of old buildings has started this session for the first time in England at University College London; but quite apart from those who undertake specialized work of that sort and therefore need intensive training for it, almost every architect is bound to encounter similar problems.

As for the much-ridiculed 'period studies' that were regularly set in all architectural schools a generation ago, they were perhaps a hang-over from the time when much so-called 'design' consisted in lifting or adapting details from the popular folios of Gotch, Garner and Stratton, and Belcher and Macartney, to say nothing of *The Practical Exemplar of Architecture*. Nowadays that habit has waned, partly as a result of economic stringency, partly because of changes of fashion. But you will all admit, I am sure, that an architect learns primarily by using his eyes; and that only by laboriously drawing-out exercises in the various period styles will he really understand and memorize them. A few hurried sketches in a notebook or on a study sheet, a hasty glance at a lantern-slide, are not enough to impress them on his memory. Exactly the same applies to the Orders. I used to think that the 'compositions' of the Orders, such as all the schools were laboriously preparing thirty years ago on *Beaux-Arts* lines, were overdone; but today I feel that some schools have gone too far in the opposite direction. In any case, measured drawings of good traditional buildings should be compulsory for all students; but it is a question whether they provide all the visual training required even if taken from good examples.

Now on this subject of historical studies I should like to say three things. First, that I am still—fancy that, I am still—a University lecturer on that subject, so I may be suspected of bias. Secondly, that it happens to be a hobby of mine and I love it. Thirdly, that I believe I am in the same age group as the President—I am one of the old guard.

The teaching of construction, in all its aspects and in all its stages, seems to be one of the most difficult problems of all. It has become infinitely more difficult since the war. The only kind of building that is now permitted is building in its lowest terms, quite apart from applied ornament. Almost everything is cut to the bone, and generally it is only the cheapest type of construction that is approved by the controlling authorities.

Admittedly some so-called 'traditional' construction is permitted, but only under the most stringent conditions. Are we to regard this state of affairs as transient or permanent? How much of our crowded curriculum is to be allotted to these current methods, and how much to what are commonly called 'text-book methods'?

Recently I had to review a new edition of a very popular manual of building construction, and I looked with interest to see how the editor had solved this problem. He had met it by lengthening the book by approximately 50 per cent! Some obsolete drawings of cast-iron columns and girders had been omitted; a great deal of excellent new information had been added; revision had been thorough; but most of the old favourites had been retained, including trussed timber partitions and all the usual types of roof-truss. Now that is all very well for use by a practising architect, but how much of it should you include in a student's course which remains the same length as before? Something must go, and I leave it to you to consider what that should be.

Lastly I must mention the vexed question of 'Practical Experience' which has worried the Institute so much during the last year or two. It was precipitated by the reports of the deputations which recently visited America, suggesting that architects in Britain often lacked a proper grounding in office procedure, site procedure, and practical knowledge of materials and construction. The reports recommended a longer obligatory period of actual experience of such things between the passing of the Final Examination and the award of the diploma of A.R.I.B.A. However, that question has now been settled, and there is no need for me to say any more about it. So, after these rather rambling remarks, I will conclude my talk.

If it has been dull or flat, I should like to say that I could have made it far more amusing if it were not to be published in the Press.

There is one point I should like to make to end with. I have spent part of my life as a practising architect and part as an educationist, and I have sometimes been asked to compare the two occupations. Well, as you all know, if an architect makes a mistake in his dimensions, if the foundations collapse, he is for it. His reputation may be ruined. On the other hand, he may become famous. The work of the educationist is usually less exciting and harassing, and therefore perhaps less interesting. On the other hand, it is almost impossible for the educationist to make a mistake, or rather, to be caught out when he does, because for every 50 people who support any educational theory there are at least another 50 who violently disagree with it. So it comforts me today to think that even if half of you think I am all wrong you will find it very difficult to prove.

DISCUSSION

Mr. Thomas E. Scott, C.B.E. [*F*], **Head of the Department of Architecture, Northern Polytechnic:** I think it very fitting that Mr. Briggs should have been chosen to read this paper. I have known him for 30 years and know how devoted he has been to the cause of architectural education. I can think of nobody better able to deal with so fascinating a subject.

He has touched upon almost every aspect of architectural education and has to some extent answered one of his own questions, namely, why all this fuss about architectural education? I think that is very largely due to the fact that the R.I.B.A. is a body which takes an exceptional interest in architectural education and through its Board encourages and controls—or should I say sponsors the control of—architectural education throughout the country.

The subject is one which excites a great volume of criticism. The only pity is that the enthusiasm of some of the most ardent critics is not usually matched by their knowledge of the subject. Mr. Briggs has also referred to the attitude of students of architecture today. Students are probably so difficult because they are rather impatient. They seem confident that they can take up the development of any new movement or fashion in architecture just at the stage where the latest innovator leaves off. They fail to realize that first of all they ought to be trained in those fundamental principles upon which all good work must be based. They seem to have all the whole process in reverse.

There is one word in Mr. Briggs' paper to which I am going to take some exception —in the very friendliest way. The word was 'sordid', describing the routine work of architecture in an office.

There is a serious difficulty in architectural education in the schools today because what used to be referred to as 'the process of design' is too rarely developed to the extent required in architectural practice. There can be an unreal distinction between design and working drawings. In many schools constructional drawing is tacked on to exercises in design, but the student still regards it as a separate part of the architect's work. To my way of thinking, this process of design begins when an architect takes instructions from his client and it only ends the day the client moves in. Strictly speaking, this process of design which seems to get most time and attention in the schools should include all the sordid routine work of the office to which I have referred, though I will agree with Mr. Briggs that there is very little of the architect's work which can not in some way be introduced or touched upon in a school curriculum. The school provides an opportunity for designing on an ambitious scale, and I think it is proper that it should do so, because for the average man or woman in the school the opportunity may never come again. But in the main the student has to be prepared for the kind of work he will ultimately undertake in offices, whether he be an assistant or a principal. I think the pendulum in education has probably swung from one extreme to the other. Fifty years ago when the majority were trained in offices there was a good deal of talk about what happened when architects received no systematic training in design. The schools set out to provide that systematic training in design, and in addition it became necessary to introduce more. The scope of that

subject became extended to include structural engineering, landscape design and so on, and much of the curriculum had to be given up to it. Unfortunately, I feel much of what we would consider good practical experience since seems to have been crowded out, and the pendulum swung over to the other extreme, with design in a narrow sense predominating. I think that pendulum is about to swing back. Once it swings regularly we shall get that happy compromise in architectural education which we all require.

I have pleasure in proposing that a vote of thanks be accorded to Mr. Briggs for his most interesting paper.

Mr. R. S. Wilshere, M.C. [*F*], **Education Architect, Belfast.** It is a very great privilege to me to have been asked to second this vote of thanks so admirably proposed by our leading educational expert Mr. Scott, and it is with some diffidence I do so.

Mr. Briggs referred briefly to the problem of education in Northern Ireland which was elaborated by Mr. Gibson. It must be nearly 25 years ago that I was a member of a small deputation that visited Queen's University to say that we would like a chair of architecture. Mr. Gibson has told us the end is in sight. I feel our local problems here could be solved if all parties concerned could only get together and perhaps sacrifice some individual ideals in the common cause which means so much to us in Northern Ireland.

Education has been mentioned as a very fascinating subject, particularly to architects. Our problems have been the subject of much controversy, and probably no simple single solution exists. One of the most outstanding changes that has occurred during my lifetime is the diminution of what used to be called 'the practical man'. Almost sublime trust is now put in academic theories. I would not suggest for a moment that academic education is not of vital importance, but I still think we have got to find this proper balance between the academic approach and the practical approach. This to my mind is probably one of the biggest problems that schools of architecture have to face.

In my young days an architect considered he was going to be a student all his life. Today one is sometimes inclined to feel the schools produce coming architects who even before their training is finished know all the answers. And of course they don't hesitate to write to *The Times* and give their answer to the latest architectural controversy.

Mr. Hugh D. Roberts [*F*]: Mr. Briggs—and I think rightly—stressed the difficulty of assistants getting training in design. We in Bath have started a system which is run by local students in offices. We who are principals are invited to set programmes and act as critics. It is rather early to say at the moment how successful this project will be, but it does seem to be a step in the right direction, and one which I think the Institute should encourage.

Mr. Francis McArdle, M.Sc. [*F*]: The approach to architecture up to the year 1918, when a chair of architecture was founded in Dublin, was made mainly through civil engineering, and students in the south had no other way then, as they have no other way in Belfast today. They took an engineering course and when they finished that course they entered an architect's office or one of the local borough surveyors' offices where architecture was carried out and they underwent an architectural training. Many were not satisfied with this and went out to seek all the other experience that it was possible for them to get. That in many cases covered many years. Today we are in a very different state, because students when they leave the university think, as Mr. Wilshere said, they know all the answers.

Mr. Briggs mentioned 'stresses and strains'. In the past when we took up engineering we covered stresses and strains. After all they form a great part of our architectural work. When the schools were formed it would appear that they wanted to get away from stresses and strains, which were put into the background, design being brought into the foreground. I think that that was a very great mistake; both of them should be given equal prominence.

Mr. James C. Kennedy [*A*]: In my opinion the most praiseworthy point of Mr. Briggs' talk was that he treated the subject with humour, because it is a thing so many of us get worked up over.

I would like to touch upon one omission. This is the very important matter of teachers for schools. It is the foundation stone of architectural education. I know Mr. Briggs and other people have been working very hard in past years for better conditions for teachers. The work will have to continue, because it is extremely hard to get men who are suitable for the role of teaching architecture at the schools.

Mr. Scott mentioned students trying to put forward their ideas and say how the schools should be run. When I was a student at school I made a point of telling my lecturers—and I hope fairly politely—the changes I thought should be made. I do hope that will never stop, because unless the student is really keen to go ahead and sometimes tell his teacher that he is wrong, I think architecture will not progress as it should do in Great Britain.

Mr. Johnson Blackett [*F*]: One speaker expressed the opinion that the teaching of the mechanics and statics of building often differs from pure design. With that I quite agree. I think it is very necessary indeed that young architects should have a very sound grounding in the scientific aspects so that they know what they are doing when they are designing. But there is this to be said: a structural engineer can design very much more economically than an architect the steel work and reinforced concrete that go into modern buildings.

When I was a student at a school of architecture we used to have very interesting lectures on the theory of architectural design which gave us a plain indication of the lines on which punctuation, proportion and all the other clichés could be understood. Today I am not so sure that there is a clear and definite way of teaching architectural design.

Mr. T. H. B. Burrough, T.D. [*F*]: I do support the student wholeheartedly in being rebellious. I don't think that there is any hope for any profession where students aren't rebellious, and that it is in the rebelliousness of the student that the future lies. We must remember that there is nothing new in it, or even particularly British. Ideas change, and personally I think that it is very often the rebels that turn out the best.

Also, I think we are under an illusion when we talk and think about a five years' course. It isn't a five years' course, but 150 weeks. How can we possibly do all we want to do in a curriculum of 150 weeks? Basically, I know, the course is 180 weeks, but examinations, beginning and end of term, and so on, cut off a good deal.

I do think the R.I.B.A. should insist that, of the five years, 40 odd weeks are spent by the student in an office. The R.I.B.A. should lay it down, both at the Intermediate and Final stages, that a student can not sit unless he has spent eight weeks per year in an office.

Speaking as a practising architect and not as a teacher, I should say of course that no practising architect can so organize his work that he has work to offer to a student in vacation times and not in the terms. So no practising architect can take on students and pay them standard wages. But a student is a student. I think it should be possible to insist on students spending this time in offices at no wages. They would go out on jobs with principals, understudy them etc. In this way they would get a course of five years, not 150 weeks.

Mr. Clifford Bond [*F*]: In the Borough of Chesterfield, during the summer vacation we often have applications from students from recognized schools who would like to come to us for a month or six weeks. But in nearly all cases we find that when they come they can't do what any architect must do—they can't draw. We give them a little job to do, and after they have done it someone else must do it for them. Can not they be taught to draw properly?

Mr. S. W. Milburn, M.B.E., M.C., T.D. [*F*]: I feel there is missing a link between the practising architect and the student in the schools. I wonder if it would be possible and desirable to devise some form of articles by which the practising architect and the student in the schools could be linked. I don't think we practising architects take enough interest in the schools. It may be that the schools can't be bothered with us. But it would be a good thing if each student could be linked with a practising architect and benefit from his advice on the completion of his studies.

Mr. A. C. Townsend [*F*] said that there was one very great difficulty concerning the teaching of architecture. The profession had never faced up to the question of who were to be teachers and how they were to be trained. It seemed to be thought that any architect could teach, but that was nonsense.

Mr. Briggs: As regards this question of the interest and the participation of students in running the schools, I should like to make it quite clear where I stand. In its place it can be a very good thing. But it can be exaggerated. What other speakers have said on the subject only makes me think that not only is this a problem peculiar to our profession, but that it always has been and always will be so. It may be a good thing. It may be something to do with the artistic temperament. I hope none of you feel insulted by that.

With regard to Mr. Scott's reference to 'sordid routine work' in an office. Much of it is sordid. Everyone knows it. But it has got to be done. I think he and I agree on that matter.

With regard to training in design by local architects where there is no school, the member from Bath may be interested to hear that this is not confined to his city. Quite a number of others do it, and it is a very good thing.

With regard to the question as to how we are to continue to attract sufficient teachers and methods of training them, I don't think I should be expected to answer those questions. I am not now Chairman of the Board of Architectural Education and I don't think it would be proper for me to discuss those questions. Everyone knows this difficulty of getting teachers of all technical subjects, architects among them. Everybody knows why. The question of training is a very big one and I certainly couldn't launch on it at the end of this talk. But something has already been done in that direction. It is a question we are all concerned about and it is not a new one.

With regard to the teaching of structural theory and design, partly as to whether it has been properly and adequately done, partly as to how far it comes within the category of engineering or architecture; that again is rather a difficult point to go into here. I think it has been properly attempted at any rate in some recognized schools. But I am sure you wouldn't want me to launch into a discussion on the difference between engineering and architecture. Lectures on the theory of design are, I believe, given in all recognized schools, and I have often felt rather sorry for the lecturers, because in the old days it was all based on the classical orders, but under the modern system it must be difficult to make much use of these, and I imagine the teaching of the theory of design must now be largely on a historical basis.

The question of how much practical experience is to be required in a five years' course I think has been settled for the present.

With regard to contact between schools and local practising architects, I think that is always desirable, and the suggestion is really in support of what I ventured to say in my paper.

I am afraid I have to leave many of these things in the air. I was grateful for the kind things said about me, particularly by Mr. Scott, because I have known him for many years and have the greatest respect for his opinion as a very sound teacher.

Speeches at the Dinner

The President in the Chair

The President, Mr. A. Graham Henderson, A.R.S.A., formally proposed the loyal toasts.

The President then rose to propose the toast of 'The Government of Northern Ireland'. He first delivered a message of regret from the Prime Minister for his inability to be present, and of pleasure that the Conference was being held in Belfast; and said he was sure that the company assembled would wish him to convey to the Prime Minister their sympathy in the great load upon him, and their thanks for the magnificence of the entertainment offered them at Stormont that afternoon. The President then went on to say:

'My duties as President of the Royal Institute have carried me well round the countryside, and I have visited nearly all the Allied Societies. My stock toast—or rather reply to toasts—has been the shortcomings and the virtues of the R.I.B.A. Tonight I am faced with a somewhat difficult task, the task of proposing the toast of the "Government of Northern Ireland". That rather bothers me because my mother was born in Ireland, and it may be that there is something in me of "agin the government". After all, the whole question of government—any government—is almost repulsive to a Briton. We like freedom and the minimum of government. We have a democratic outlook, and if, for some reason, we dislike a government we throw it out.'

But, speaking seriously, the President said, we had at the back of the government the magnificent organization of the civil service. They were the people who carried on government permanently, following the policy as decided by the politicians. However much political life might shuttle from right to left and back again (he had visited a linen mill the day before), the civil service seemed to go steadily onward, like the other component in weaving—a subject about which, however, he admitted to being ill-informed.

The President went on to say that architects today were interested in government. When he was a young man this had been much less the case. At that time, perhaps 5 per cent of the architectural profession had received their commissions for work from the government or local authorities. Today the proportion was nearer 100 per cent. Therefore architects were now very much interested in everything the government did that related to building. He thought the government had been very fair to architects. They had never attempted to influence them on questions of design nor on the way in which work was carried out, but had been content with seeking their advice and services. Architects for their part, he thought, had always given that advice without any political bias.

Nevertheless the state today had great responsibilities in matters of design, not only for those new buildings which they were responsible for creating, but in the preservation and maintenance of our many historic buildings. Here the government had both great powers and great responsibilities. The means for exercising these powers were restricted in that, unlike the Pharaohs with their slaves (to take a parallel from history), the government did not have unlimited powers for the direction of labour nor unlimited resources. He hoped, however, that no government would ever neglect our heritage of the past with its glorious monuments.

He had met in London a party of twenty eminent American architects who had come over for the chief purpose of visiting the exhibitions in connection with the Festival of Britain, particularly that on the South Bank. He had found that these Americans, though impressed by the novel ideas in design and construction expressed on the South Bank, were even more interested in our glorious heritage of historic architecture.

Returning to the subject of the architecture of the present day, the President said an equally heavy responsibility lay on the government for the heritage we were to pass on to future generations. The governments were the only people who could give us our heritage, and architects were prepared to do their best. He said: 'We have put our house in order, we hope to be able to do good work, but we rely on the government to give us that opportunity. In an earlier word that I spoke today I referred to the question of quality and the emphasis that should be put on it. Quality is just as important as quantity in my view. With that one word in mind I trust that we architects will hand on to future generations something that they can be proud of.

'It is with the greatest pleasure that I associate this toast with the name of Major Sinclair, Minister of Finance. Out of the many posts that he has held one has been Minister of Works, and therefore he is probably in very close sympathy with our ideals. I ask you to drink the toast of the Government of Northern Ireland, coupled with Major Sinclair.'

The Right Hon. Major J. M. Sinclair, D.L., M.P., Minister of Finance said: 'It is a very great pleasure to me to be here this evening to have the opportunity of welcoming to Northern Ireland such a distinguished body as the R.I.B.A. I would like to express on behalf of the government our pleasure in having you here on what I think is all too short a visit, which I hope has been a pleasurable and profitable one to such an extent that you will return at an early date, either as a body or as individuals.'

Major Sinclair went on to say that he understood that though the election had not yet taken place it was a foregone conclusion that Mr. Henderson would again be President of the Institute. He wished to

congratulate not only the President and the Institute on this, but also the general public on the fact that the Institute would for another year continue to have the benefit of the President's inspiration and wise guidance.

He then quoted the words of William Morris: 'I have spoken of the popular arts, but they are all summed up in that one word Architecture. They are all parts of that great whole, and the art of house building begins it all. Architecture would lead us to all the arts, as it did with earlier men; but if we despise it and take no note how we are housed the other arts will have a hard time of it indeed.' Personally, said Major Sinclair, he thought Morris was wrong; because his was the time of the industrial revolution, and architecture was at a very low ebb; whereas the same could not be said of literature in the time of Scott, Burns, Wordsworth and Dickens, to name only a few at random. (In deference to the Chairman, said Major Sinclair, he had mentioned Scott and Burns before the others). And there was evidence that in those days the art of those authors and of the poets was appreciated even by those people who lived in what Morris called 'hideous houses'.

Major Sinclair continued: 'However, you gentlemen may not all agree with what Morris said in another sense, because I think you are bound to consider that architecture today is on a very high plane; whereas you may well subscribe to the view about another form of art which was expressed by the man who said: "One reassuring point about modern art is that things can not be as bad as they are painted".'

This brought him back from the industrial revolution to the present day, and to a matter which had been discussed, not since the 18th century but nevertheless for a number of years, and that was the proposal that there should be a chair of architecture established in Belfast's University. Major Sinclair said he thought that suggestion was perhaps a little premature. He had read with a great deal of interest the Report of the R.I.B.A. Committee on Architectural Education, and also the Report of the Ministry of Labour on the Related Questions of the Supply and Demand for Persons with the Necessary Qualifications in Architecture. He had also discussed the matter with the authorities of the University on a quite informal basis, and the view of the University, so far as he had been able to gather it—he spoke for himself, said Major Sinclair, and not on their behalf—was that, while not shutting the door to the establishment of a chair of architecture in the University, the difficulties that surrounded building at the present time, coupled with the necessity for housing adequately some Departments which already existed, meant the time was not ripe for the establishment of a new chair.

Major Sinclair went on: 'I have therefore been considering, and on this I would welcome the opinion of the Institute and the Ulster Society, whether or not it would be to your advantage if the government established some scholarships in architecture which would be tenable in universities or similar institutions in England or Scotland. The government, I feel, would be prepared to finance scholarships of that type if it was thought desirable by the Institute and the Society. There would, I think, have to be a proviso attached, and that would be that those who got the advantage of this system of instruction in architecture should for at least a specified time practise in Northern Ireland. But if the Institute and the Society think well of that suggestion, my proposal would be that the University should be asked to make the necessary arrangements with institutions in Great Britain, and that the selection of suitable candidates for that purpose should be left to a panel very largely composed of members of the Ulster Society. I would very much welcome the views of the Institute and the Society on that suggestion.'

Major Sinclair went on to say that, in spite of the Report of the Ministry of Labour, which stated that the supply of fully qualified architects was adequate to the demand in Northern Ireland, he was far from satisfied that this was the case. He referred to the fact that not only was there a shortage in the government service, but also to the fact that Northern Ireland had a form of competition in ingenuity among the profession based on subsidies granted to the private builder. He also said that Northern Ireland did not have that extensive planning under which Great Britain suffered, and which engaged so much of the time of the members of the architectural profession. Major Sinclair said that planning could be desirable, but it could be excessive, and he referred to a recent definition of sabotage as 'throwing a planner into the works.'

Major Sinclair concluded: 'I will end as I began—by thanking you for the way in which you have received me, and by thanking you on behalf of the government and people of Northern Ireland that you have thought fit to come here for your Conference this year. I hope before long you will come back again.'

Mr. A. B. Knapp-Fisher, F.S.A. [*F*], rose to propose the toast of 'The City of Belfast.' He said: 'In proposing this toast, one of the things one asks oneself is what contributes most to the making of a city. I suppose most people in this room would say, first of importance is its spirit and temper; secondly, its administration, or government; thirdly, its occupations, both work and leisure; fourthly—and this is where we come in as architects—its architecture. And I venture to say that its spirit, its government and its occupations depend very largely on what sort of buildings are erected for their use. A city can only flourish and rise to its full stature in good surroundings, with good environment and the right sort of buildings.'

Mr. Knapp-Fisher went on to say that if we were to look back some 300 years, to Stuart times—or what architects call the 'late Renaissance'—we would find a small village with a few lanes leading to mud and wattle huts. Then for 150 years not very much happened. But in the last 150 years—for Belfast was essentially a modern city—it had begun to grow with amazing speed. In this last 150 years of its history had fallen the Georgian period, with its delightful homes, its orderly houses which have delighted and which still delight all generations and which have saved so many cities and towns throughout the British Isles from uglinesss.

And so, said Mr. Knapp-Fisher, we came to the Belfast of today, with its population of nearly 500,000 people, its 2,700 streets, its port—one of the largest in the British Isles; a city of world-wide fame, renowned for its traditions and trades and businesses—ship-building, rope-making and linen manufacture. 'May your great traditions continue to flourish, and may you continue to have pride in them,' said Mr. Knapp-Fisher.

He went on to ask, what of the present-day buildings of the city, in which its population worked, lived and had its being? And added that it was appropriate to remember, in this time of so many temporary exhibitions, that the historical buildings in every town and city in the British Isles constituted a permanent architectural exhibition always before our eyes of which we did not take sufficient notice. The architects of the Victorian period had had a high old time. Somewhat recklessly, they had mixed styles taken from Roman, from Greek, from mediaeval and from Renaissance times. Today the younger generation would say that they were wrong. For his part, said Mr. Knapp-Fisher, he thought that a style which had lived and died could rarely be made to live again. Every living style was and must be an expression of its own age. We must live in our own times. And in this time of regimentation we must, as architects, keep our identity.

Mr. Knapp-Fisher told the story of the schoolboy who translated the motto of Belfast, *Pro tanto quid retribuamus*, as 'I must return thanks to my aunt for her pound note', and said that as far as the present gathering was concerned, that was not very wide of the mark. They could not but ask themselves what they could do as architects to repay the many favours and the kindly hospitality they had received. They would like to feel they could do something to help the city fulfil itself in the years to come. Unfortunately, during these times of difficulty and financial stringency, architecture was temporarily in cold storage; but, he said, 'We shall be happy to feel that this Conference held in your capital city which has seen and suffered so much and has done so much and which means so much to the British Commonwealth of Nations and to the world at large—that this Conference will help us architects to keep our candle burning until architecture shall come into its own again. May your city, with its courage and its convictions, continue to transcend history—not to be made by it, but to make it.'

The High Sheriff of Belfast, Councillor S. K. Henry, responding to the toast, after apolo-

gizing for the unavoidable absence of the Lord Mayor, expressed his thanks for the inclusion of his name in the list of guests and for the coupling of it with the toast of the City of Belfast. He thanked the last speaker for the kind things he had said about Belfast and also for the new translation of its motto. He and others who, like him, had pride in Belfast, were, he said, citizens of no mean city. There were a few things he would like to tell the company about the city, particularly those who were visiting it for the first time. He spoke first of the scenery of County Down and the Antrim Coast, and went on to say that there was much to be proud of in the commercial life of Belfast—its linen was a household word at home and abroad, its shipbuilding was in the front rank, its rope-making was famous throughout the world. He spoke with pride of the city's business men who had built up its great warehouses and storerooms from small beginnings through the hard work, thrift and enterprise for which Ulster was famed. The progress that had been made by the city was due to their foresight and vision. It was originally to such men that Belfast owed its City Hall, which was well worth a visit.

The High Sheriff concluded by saying that he was delighted to confirm the welcome already extended to the Conference, and he was delighted that Belfast had been chosen for it. He hoped that the discussions taking place would be fruitful and the wished-for chair of architecture would be established. He ended: 'May you take away very happy memories and "Will ye no' come back again".'

Mr. Vincent Kelly [*F*] proposed the toast of 'The Royal Society of Ulster Architects'. He said: 'I confess that I am terrified at the task of putting into some three and a half minutes the words which I am bound to utter in giving effect to the duty imposed upon me. The toast which I have the honour of proposing is one usually given at meetings of the R.I.B.A. with Allied Societies, but it is usually entrusted to an Archbishop, a Moderator of the General Assembly, or a Minister of State: certainly to someone of more sober mien and lofty sentiments than I can command.'

Mr. Kelly went on to say that there was always the greatest rivalry between the various Allied Societies for the visits of the parent society, the R.I.B.A., and it might well be that that wise old lady of Portland Place had thought to forestall any jealousy the South of Ireland might feel on this occasion by designating one of its members to propose the present toast. Mr. Kelly said his qualifications for the task were few, but they did include a great admiration for the work of the Royal Ulster Society, a friendship begotten in strange places with many of its members, and a sincere regard for its President.

Mr. Kelly said that ever since 1944, when he had had the pleasure of presiding over a joint committee formed by the two architectural bodies of Northern and Southern Ireland, the two bodies had worked in the closest harmony with each other and the R.I.B.A. It was a fruitful and enduring union which might well set an example in a world torn with hate and strife. As to Mr. Gibson, the progress made by the Ulster Society in recent years had been largely due to him, and it was fitting that he should be its President in its Jubilee year. One wondered how he managed to do such brilliant work, to give such service and time to the Society, and at the same time devote himself to the breeding of pedigree cattle, in which he was as successful as in other spheres. Mr. Kelly concluded: 'Mr. President and Members, on your behalf I extend congratulatory greetings on the occasion of its Jubilee to the Royal Ulster Society. I thank them for having provided hospitality and background for such a delightful few days, to enable old friendships to be revived and new friendships made: for friendship plays a large part in assemblies such as this.

'From quiet homes and small beginnings,
Out to the undiscovered ends,
There is nothing worth the winning
But laughter and the love of friends.'

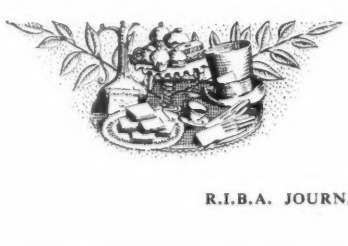
Mr. R. H. Gibson [*F*], **President, Royal Society of Ulster Architects,** responding, said that he was especially pleased that his old friend Mr. Kelly had been chosen to propose the toast of his Society. Everyone could appreciate that someone coming from the south of Ireland would have a bit of blarney. Those who knew him knew to what extent Mr. Kelly could indulge that blarney. But tonight he had surpassed himself.

Mr. Gibson said he appreciated very much the warmth of the reception accorded to the toast of his Society, and he saw in it confirmation of the satisfaction that had been afforded by the coming of the R.I.B.A. to Belfast in the Society's Jubilee year. He thought the Society had been able to do a great deal of useful work during the past fifty years, and he thought the Society owed a lot of its success to its very close association with the R.I.B.A. He was very glad to hear that the Minister of Finance was going to help in some small way towards attaining the goal of a school of architecture for which the Society had been striving over many years. He thought it was a token of the sincerity of the government, though it did not go far enough. The Society did feel that it wanted its own individual school in Belfast, with the personal contact that that implied. But the Society did feel satisfied that this was a step nearer to greater things, to receive the aid offered tonight by the Minister himself.

Mr. James M. Aitken, M.T.P.I. [*A*], **Chief Architect, Ministry of Health and Local Government,** proposed the toast of 'The Guests.' The dignitaries of the city, Lord Glentoran, H.M. Lieutenant for Belfast, Councillor Henry, the High Sheriff and the Town Clerk, Mr. John Dunlop, he said, required no link with architecture. They were present in the very important rôle of representatives of the City of Belfast, who was perhaps the gathering's true host there tonight. It was also a very great honour to have there the Marquess of Hamilton, son of the Duke of Abercorn. That great lady the Dowager Marchioness of Londonderry, was certainly connected with architecture, in as much as she lived in it. The Minister of Finance, Major Sinclair, was the greatest employer of architects in Northern Ireland. Colonel Sam Houghton, Chairman of the Belfast Chamber of Commerce, had a very special place, since he had done more than any other man to put Northern Ireland on the business man's map of the world. Mr. Aitken mentioned also Sir Lucius O'Brien, Chairman of the Northern Ireland Housing Trust, Sir William Scott, C.B.E., Permanent Secretary, Ministry of Finance; Mr. L. G. P. Freer, C.B.E., Permanent Secretary, Ministry of Health and Local Government; Mr. Morris Harding, R.H.A., A.R.B.S., President of the Royal Ulster Academy of Arts; and Mr. W. Sweeney, Chairman of the Belfast Water Commissioners, who undoubtedly had a connection with architecture, because architects could not erect buildings without water, though some operatives made a good shot at it. An important guest from Northern Ireland's point of view was Mr. Pembroke Wicks, not so much for his good work on the Architects' Registration Council but as one time private secretary to the late Lord Carson.

The Most Hon. the Marquess of Hamilton, Deputy Lieutenant of the County of Tyrone, responding to the toast, thanked the gathering for their hospitality and for the honour of attending the Conference dinner, and said he too could claim to be a member of the architectural fraternity. He was an architect and builder. He had once built a house. It wasn't exactly a house. It was a loggia, in the grounds of a farmhouse belonging to a friend of his. It had no damp course or nonsense of that sort. They didn't bother with levels, though they had a plumb line. And when they approached the time for putting on the roof he had urgent business elsewhere. Afterwards the building fell down.

There had been a nostalgic reference to Georgian architecture. But surely that was rather a sterile way of regarding it. 'Can not we,' he said, 'especially perhaps my fellow countrymen in the North of Ireland, devise a modern form of architecture which will adorn the city and fit into the countryside as some of our 18th century Georgian farmhouses do? I believe we could, I believe we have got to. The greatest Architect of all has given us a beautiful countryside, and I feel that in our humble way we can merit that by placing in it houses which will be a delight to live in, a delight to people who pass by, and a memorial to future generations.'



Industrial Buildings

By Frederick R. Wylie [*F*]

Read at the British Architects' Conference, Belfast, 1 June 1951

The President in the Chair

Fig. 1: Fagus factory, Alfeld a.d. Leine. Architect, Walter Gropius

Introduction. If you look through the back numbers of the architectural magazines, as I have been doing in the preparation of this paper, you will find hardly any reference earlier than 1928 or so to industrial buildings. Since then, however, more and more space has been given to descriptions and illustrations of factories, and to articles dealing with the various aspects of industrial design. Since the end of the war the trickle of information has become a flood. Factory building is no longer the Cinderella of the drawing office; it has become Industrial Architecture.

This phenomenal growth of interest in the subject in the past 20 years can be accounted for in various ways, but I suggest they all boil down to this; that as a generation we have become acutely conscious of the methods by which most of the things we eat, wear and use are made, and by which we pay our way in a troubled world. If a label is ever put on our time it may well be that this was the age of mass production. Another reason, in this country at least, is that by and large we are compelled by straitened circumstances to restrict our building activities to the essential tasks of housing, schools, hospitals, and factories; and consequently have little else to talk about when we get together as a profession.

It is not surprising, therefore, that the R.I.B.A. convened a Conference two years ago to discuss the rôle of the architect in industry and arranged an exhibition of current work in this field. These have been fully reported and illustrated in the JOURNAL and are well worthy of study. I shall endeavour in this talk to supplement rather than to repeat what is recorded there and elsewhere. One of my difficulties, indeed, has been to endeavour to pick a path through this subject which has not already been well trodden.

Historical Outline. First of all, I wish to say something about the background of the development of industrial buildings in the United Kingdom. The factory system, under which the employer and his employees carried on a trade together in a workshop which was separate from their homes, was already in operation on a small scale before the Industrial Revolution took place toward the end of the 18th century. In one trade at least—the craft of iron founding—the system had been in existence for fully 300 years before that. The nature of the work was such, of course, that a workshop and a squad of men were necessary for its execution. One of the events which was an essential preliminary to the Revolution occurred in this particular industry when in 1733 Abraham Darby succeeded in producing coke from coal and set up his foundry at Coalbrookdale in Shropshire. This invention gave a tremendous impetus to the trade, hampered as it had been for a long time by the shortage of timber, and within a few years the Boulton Ironworks near Birmingham, and the Carron Works at Falkirk, were in production.

The first large textile factory was built at Derby between 1718 and 1722 for the manufacture of silk, to the order of the brothers John and Thomas Lombe. I have been unable to trace any print or other illustration of this building, and this is unfortunate because it appears to have been very well worth seeing. It is described at length both by Defoe and Arthur Young in their Travelogues. When the Lombe Brothers' patents expired some 10 years later, various other silk mills were built, notably at Leek and Macclesfield.

Iron for machine parts came into use about 1750, but the first factory to have all-iron plant was the Albion Mill built in London in 1784. This development of machinery was closely linked with the growth of the factories and it is characteristic of this transitional period that until the end of the century the factory system developed side by side with the old cottage industries.

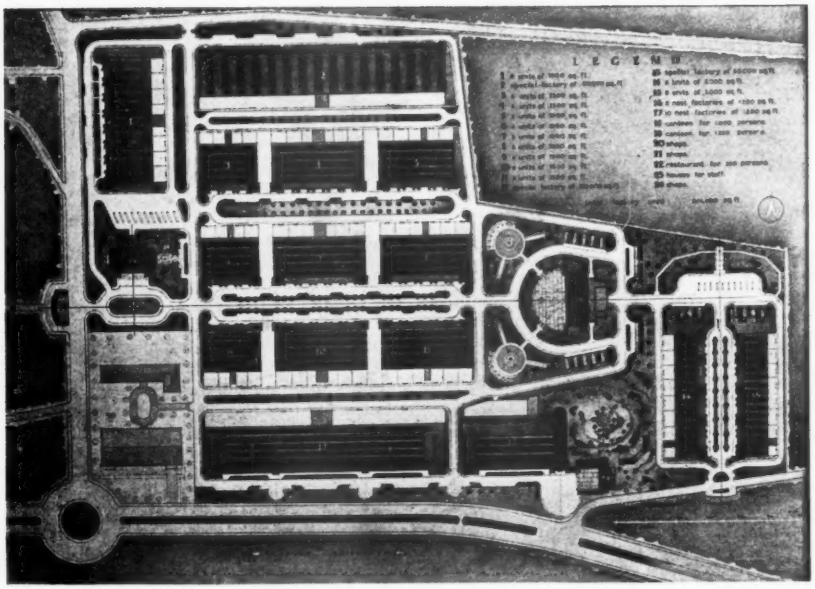
The Industrial Revolution was, in fact, brought about by the veritable spate of mechanical inventions produced in the second half of the century, principally in the cotton industry. The first machines were quite small and could still be operated by the weavers in their homes. The later inventions, from 1770 onwards, of Arkwright and others were too big and heavy to be installed in cottages and required more than the power of one man to operate them. Thus the cotton mills came into being, and the weaver working in his front room gradually became an anachronism.

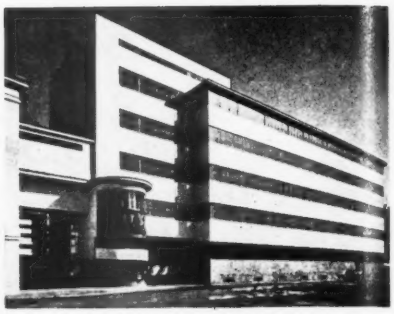
Many of these early factories were built under the supervision of the millwrights, who were, in fact, the key men of the industry, and appear to have been able to turn their hands to all sorts of jobs. The buildings they put up were for the most part simple unpretentious structures, but had about them traces of the character and flavour of Georgian culture.

At the turn of the 18th century the industrial field was producing a record crop of rugged industrialists. Among them was David Dale, who established cotton mills near Lanark in Scotland, about 1785. Dale was one of the most remarkable characters of his day; he differed from most of his fellows in this respect, that as well as being a keen business man he took great interest in the working and living conditions of his employees, and the factories he built were models in their time. His work was carried on and the establishment developed on communal lines by his more famous son-in-law, Robert Owen, hailed in these days as the father of British Socialism and of the Co-operative Movement. Owen had a fascinating career as a reformer, but as his architectural output has not been recorded we can not dwell on him here.

Dale and Owen and a few others were exceptional in their philanthropy. The long war with France had created violent disturbances in the economic life of the country. Fortunes were made and lost as the blockades were imposed first by one side then the other. During the recurring periods of depression the working-classes suffered terribly. Many of the old masters who had taken a paternal interest in their workers were replaced by opportunist speculators who were very much beggars on horseback. 'These circumstances gave birth'—as Professor Trevelyan says—'to a rampant individualism inspired by no idea beyond quick money returns, which set up the cheap and nasty model of modern industrial life and its surroundings. The modern English slum town grew up to meet the momentary needs of this new type of employer and jerry-builder, unchecked and unguided by public control of any sort. Town-planning, sanitation and amenity were things undreamt of by the vulgarian makers of the new world, while the aristocratic ruling-class enjoyed its own pleasant life apart, and thought that these subjects were no concern of government.' Such was the position when Victoria came to the throne. Throughout her long reign the industrial era continued to grow in strength if not in beauty, and factories and workshops sprang up like mushrooms.

Early Victorian mill buildings are still in use in every industrial town throughout the country. At best they have about them a certain gloomy grandeur, but this might also be said of many of our prisons and reformatories. In any case their grim charm is apparent only to the artistic eye in the half-light of dusk, and is rarely, if ever, appreciated by the people who have to work in them.





Left, Fig. 2: Queenslie Industrial Estate, Glasgow. Architects, George Boswell [*F*] and Partners. Consulting Architects, Wylie, Shanks and Wylie [*F/F*]
Right, Fig. 3: Tobacco factory, Linz, Austria. Architects, Peter Behrens and Alexander Popp

Successive Factory Acts did much to improve conditions for the workers; great strides were made in medical science and in the care of public health, and universal free education was finally achieved; but with it all, it is fair to say that industry and art rarely met in the 19th century. The machines were driving the handicrafts out of existence and were made to produce poor imitations of all the things which for centuries had been fashioned by hand and one at a time.

It was inevitable that there would be a revolt against all this. It was perhaps also inevitable that the rebels, led by William Morris, should label the machines as the villains of the piece, scorn their use altogether, and end up in the philosophical backwater of 'Art for Art's sake.' Whether Morris and his friends liked it or not, the machines and their products had come to stay. Even in his day the æsthetic possibilities of iron construction had been demonstrated by engineers in the various fine bridges which had been built up and down the country, and, of course, by Mr. Paxton the gardener, whom we are all remembering this Festival year.

So far as industrial building is concerned, the architects of the 19th century made a poor showing, possibly because they were seldom employed in this class of work. On the rare occasions when manufacturers did decide to go in for a bit of art they might commission an architect to put a false front on a factory in whatever historical style happened to be in fashion. They subscribed to the belief that 'art is not art unless it is useless,' and they reduced the architect to the status of an exterior decorator whose chief stock-in-trade was a well-furnished library. It was not until the end of the century that architects began to query the universal application of the historical styles. In this country the movement proceeded under the flag of Morris and was developed by Voysey, Mackintosh, Baillie-Scott and others in a romantic manner that had few contacts with the industrial world. It is to Europe that we have to look for the first fruits of the new outlook of fitness for purpose, as expressed in factory construction.

Walter Gropius designed the Fagus factory at Alfeld a.d. Leine, shown in Fig. 1. This building was completed before the first world war; it bears a family resemblance to the famous Technical College at Dessau designed by the same architect, but it has a rather more rugged character which I find most attractive.

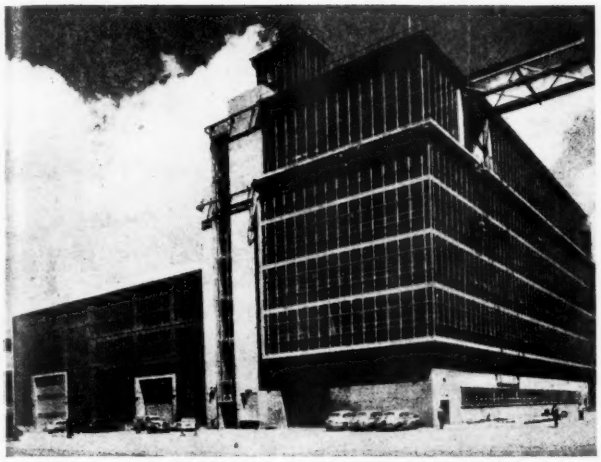
Industrial Estates. Before passing to contemporary work, and by this I mean factories erected within the last 30 years, I wish to say something about the industrial estates which are now a prominent feature of industrial life in Great Britain. These estates are a comparatively modern development, although in a way they are only a logical outcome of the tendency to form in clusters which industries—and particularly industries related to one another—have always shown. The important thing to bear in mind, however, is that they are controlled hives, and not the huge shapeless swarms that the 19th century bequeathed to us. The first industrial estate was founded at Trafford Park, Manchester, as far back as 1896, and a second estate at Slough was begun in 1920. Shortly after this, factories began to appear on the areas set aside for that purpose in the new towns of Letchworth and Welwyn founded by Ebenezer Howard.

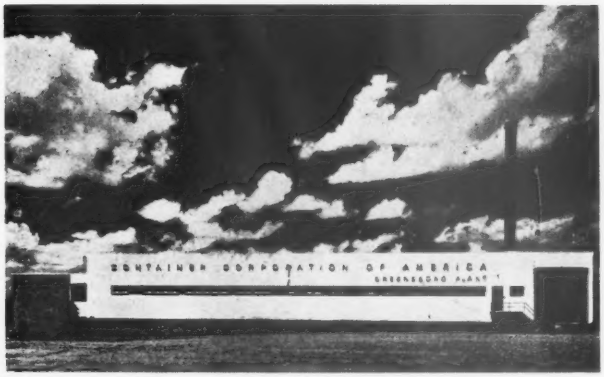
In 1937 a new group of estates was brought into being to relieve the mass unemployment in the areas of the country which had been most badly hit by the years of depression from 1930 onwards. Commissioners were appointed to three of these so-called 'Special Areas,' located respectively in the north-east of England around Tyneside, in South Wales, and in the Clyde area in Scotland. Companies were set up by these commissioners with voluntary boards of directors, empowered to purchase areas for development as industrial estates, and to build factories and provide services therein, with funds provided by the Treasury. It was further enacted that the factories would be leased on a rental basis, thereby enabling the tenants to concentrate their finances on the purchase of plant. This principle has generally been adhered to on all the estates and has been a particular benefit in the case of new businesses with slender resources. The communal canteens and the provision of all public utility services up to the doorstep are other great advantages to the smaller firms.

In 1945 the Distribution of Industries Act replaced and extended the Special Areas legislation. Under its terms the Board of Trade were authorized to purchase further estates or sites for individual factories in all areas in need of fresh sources of employment. The estate companies already in existence became agencies of the Board of Trade, and further companies were set up in West Cumberland and Lancashire. More recently a small estate has been started at Castlereagh outside Belfast. It is there that the factory and agricultural exhibitions which are the chief contribution of Northern Ireland to the Festival of Britain have been staged. They occupy the interior and the grounds of a new factory block designed by Messrs. Ferguson and McIlveen.

The first company to be formed in 1937 was North-Eastern Trading Estates Ltd., who purchased ground in the Team Valley at Gateshead and commenced work there. A few months later similar companies were brought into being in South Wales and Scotland. The former proceeded to develop an estate at Treforest on which Sir Alexander Gibb and Partners and Sir Percy Thomas and Son were associated. The first purchase of the Scottish company was an area of some 320 acres at Hillington near Glasgow, and for its development they employed my firm as their architects.

It was only to be expected that the various estate companies would develop their land





Left, Fig. 4: Ordnance and Optical building for U.S. Navy, San Francisco. Architects, Kump and Falk
Right, Fig. 5: Factory for Container Corporation of America. Architect, Walter Gropius

in slightly different ways and adopt the standards of planning and construction best suited to their needs. In Scotland in 1937 the most urgent problem was to attract new light industries which would absorb at least part of the great body of workpeople for whom employment was no longer available in the heavy industries centred round Clydeside. To this end, the first blocks to be built comprised some 30 units of 5,000 sq. ft. each and 12 units of an even smaller size, 1,400 sq. ft. The fact that since 1938 there has been a continuous waiting list for all these small factories is a justification of the estate company's policy. These units have been designed to be suitable for a wide range of light industries. In the 5,000 sq. ft. factories the workshop space measures 50 ft. wide by 87 ft. long, and the clear height to the roof truss tie level is 12 ft. The workshop is fronted by an area subdivided into offices and lavatories to suit the tenant's requirements. At the back is an enclosed yard space approximately 100 ft. in depth. The design for these factories was put forward by my firm to the estate company as a unit likely to be most useful to the smaller firms engaged in light industry which it was hoped to attract to the estate. It was later found that the sizes were very similar to those of the units which had already been built at Slough and Welwyn for the firms employing 20 to 30 people. The smaller units consist of workshops measuring 30 ft. by 40 ft. with a couple of lavatories at the back. These were designed for the man working with up to 10 employees, but some are accommodating twice that number. The amount of activity which goes on in these tiny units is surprising.

The Queenslie Estate shown in Fig. 2 is located on the outskirts of Glasgow, on the main road to Edinburgh, and was designed by Messrs. George Boswell and Partners. Our experience on the Scottish Estates has been that when fully developed each site can provide a total floor space of approximately one third of the ground area, and that the population figures work out at about 150 sq. ft. of floor space per head. Individual cases, of course, can vary widely from these figures.

It may be of interest to note that by the end of 1950 the floor areas of all new factories built by these Government-sponsored companies had reached the colossal figure of 19 million sq. ft. In addition to this the companies had taken over and converted for use by their tenants a further 11 million sq. ft. of former Royal Ordnance and other Government factories. The total value of the contracts placed at that date was in the region of £38 million.

Contemporary work. It may be observed in passing that not a few of the office elevations of factories erected during the past 20 years show evidences that yet another historical style is with us and that many a design is being strained to include one or other of those features that were so challenging when they were used for the first time by Gropius or Ostberg or Dudok. Even our random rubble walls nowadays pay homage to Monsieur Corbusier.

The first illustration of a European factory, Fig. 3, is of a factory designed by Peter Behrens, in association on this occasion with Alexander Popp. It is a tobacco factory at Linz in Austria.

Of American factories, the first example is the Ordnance and Optical Factory designed for the U.S. Navy by Kump and Falk, Fig. 4. This is, I think you will agree, a fine composition.

Gropius designed the factory shown in Fig. 5, for the Container Corporation of America. The cans made here, one feels, could not be other than perfectly shaped and scrupulously clean.

By 1938 the firm of Albert Kahn Incorporated had built factories all over the world of an aggregate value of $800 million. What that total would be today is anyone's guess. Fig. 6 shows the boiler house designed by the firm for the Chevrolet Company at Baltimore, and Fig. 7 is the export building for the Chrysler Company, Detroit. The profession owes a great deal to Kahn, for it is he, more than any other architect, who has demonstrated to the industrial world the value of our professional services. He has done this during the 48 years he has been in practice by studying intensively the problems of every job that has come his way; and by providing buildings to answer these, quickly and efficiently. He made his name in the motor-car industry, where mass production techniques were first developed on the intensive scale we know today. These methods spread to other industries and inevitably Kahn's reputation and practice extended correspondingly. He has himself written a book on the subject of factory planning, and a monograph on his work was produced in 1939 by George Nelson.

An example of industrial work by Sir Percy Thomas and Son is the Abbey Works, Port Talbot, built for the Steel Company of Wales; it is illustrated in Fig. 8. Sir Percy is

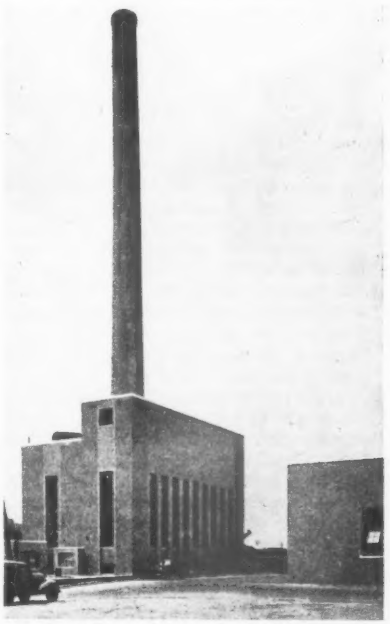


Fig. 6: Boiler house for Chevrolet Company, Baltimore. Architects, Albert Kahn, Inc.

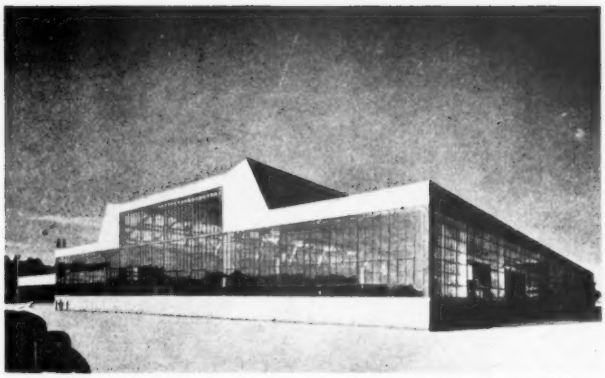


Fig. 7: Export building for the Chrysler Company, Detroit. Architects, Albert Kahn, Inc.

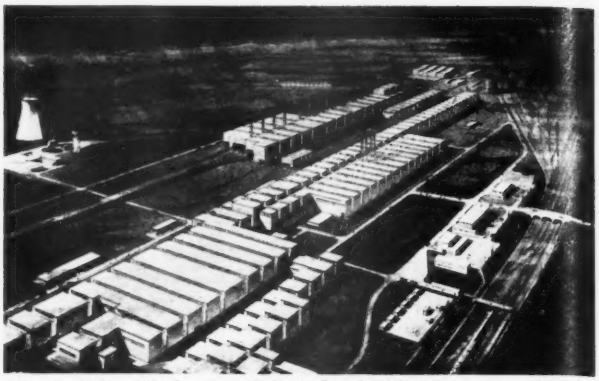


Fig. 8: Abbey Works, Port Talbot, for the Steel Company of Wales. Architects, Sir Percy Thomas and Son [*F/A*]

no specialist like Albert Kahn; the range of his work has been as great as the quality has been high.

A boiler house in Berlin is shown in Fig. 9. It was designed by Arthur Korn and is about as different as could be from the Chevrolet building, but it is at least as satisfying.

Planning. I now turn to the vital matter of planning. Planning can be summed up very simply as the application to any particular problem of the proper mixture of logic, knowledge, and commonsense; these three, and the greatest of these is commonsense. Much has been written about factory planning, and I would recommend in particular the articles on the subject in the book of the 1949 Conference and the section in the Planning Notes compiled by that indefatigable couple 'E. and O.E.' It is always interesting, and it is sometimes helpful to see from the plans and illustrations in the magazines how other people have solved their particular problems, but it seldom happens that one's own are identical. Here it is that the mixture I have prescribed will be found not merely useful but essential.

A common cause of mistakes in planning is lack of time. Clients are notoriously impatient about the time spent in the preparation of drawings; but it is most necessary that the essentials of every project should be carefully studied before the plans are settled; there is no royal road to the final solution. Trial and error is the only way, and it is surely sensible that the trials and the errors should be made on paper in the drawing office rather than in concrete and steel on the site.

In the times of stress in which most plans are prepared it is all too easy to overlook some point or other, and it is for this reason that I suggest the use of check lists. As an example, here is a list of items which, if applicable, should be considered when the site of an industrial project is being examined:

Siting Considerations

1. *Physical*: (*a*) Size in relation to size of the project; (*b*) shape; (*c*) aspect, also nature and condition of surrounding properties; (*d*) levels in relation to (i) floor levels, (ii) drainage, (iii) railway sidings; (*e*) subsoil, (i) bearing capacity, (ii) composition, especially if made-up, (iii) records of underground mineral workings; (*f*) climatic conditions, e.g. temperatures, rainfall, prevailing winds, etc.
2. *Labour*: (*a*) Availability of suitable types and numbers; (*b*) location of existing housing; (*c*) allocation by local authority of houses for key workers, etc.
3. *Legal*: (*a*) Check sizes of site from title deeds; (*b*) note servitudes such as ancient lights, wayleaves, etc.; (*c*) check that site is in area scheduled for industrial development; (*d*) check building lines as existing, and as proposed; (*e*) examine local building bye-laws.
4. *Transport*: (*a*) Roads—location, width, condition, etc.; (*b*) railways; (*c*) rivers or canals; (*d*) docks; (*e*) airports; (*f*) bus or other transport services for workers.
5. *Economic*: (*a*) Site in relation to raw materials, including fuel and power; (*b*) site in relation to markets for finished products.
6. *External Services*: (*a*) Drainage—or rainwater, soil and trade effluent; (*b*) water; (*c*) electricity; (*d*) gas; (*e*) others.

Further lists can be made up for items to be considered in the location of the buildings on the site, and in the detailed planning of the various departments. There is a certain satisfaction to be gained in ticking off each item as it is disposed of, and it has the further great advantage of leaving one with more time to think of other points which should be investigated.

It has been emphasized in every book and pamphlet on the subject, but it can not be repeated too often, that the first essential of factory planning is to ensure an even, continuous flow of production. The arrangement of the various departments and the layout of the machines—particularly those for which special foundations are required—should be discussed and settled with the client as far as possible in these early stages. It is natural for a manufacturer to assume that because he has been making certain articles for a period of years he is best fitted to decide the sequence of the manufacturing operations and the arrangement of the plant. This may very well be so, and it is true to say that most plant engineers are fully alive to the economics of their job and have given considerable thought to the best arrangement of their processes. You will, however, find cases where people have been muddling along for years, and either have no idea of how their plant should be arranged or, worse still, hold views on the subject that are as strong as they are erroneous, only more so. In such cases the architect can add considerably to his usefulness by suggesting new arrangement. This is a matter which calls for the exercise of considerable tact.

Design. Design is such a personal matter that I propose to say very little about it. It represents the reaction of the designer to the requirements of the programme, and the result may be good architecture or not, depending on his ability. We can lay it down as a first principle that the whole design must 'work' efficiently in all its parts if the workers and the machines within it are to function at their best. We can add that the exterior must be dictated in essence by the requirements of the interior, but for the rest we must leave it to the designer to work out his own artistic salvation within these limits.

I have attempted to show in my illustrations of contemporary work a mixed bag of designs. They are the answers made by their designers to the problems presented by a wide range of industrial subjects. You may or may not like all these answers, but it will be agreed, I think, that most of them are direct and honest.

Structure, services and finishings. While the plan of the factory is being developed and the design is making its laborious way to the surface, other matters are also brewing. The structural system for instance, and the general arrangement of the internal services, and the nature of the finishings; all these are under active consideration.

Here again check lists can be most helpful. Those of you who have read the appendices to Mr. Churchill's *Second World War* will remember his frequent demands for information on this, that, or the other subject—on one sheet of paper. He had no time to read long reports, and we in our

humbler spheres have no time to plough through our textbooks when the drawings and a report have to be out by tomorrow night. Closely related to check lists are 'schedules of application', which perform a most useful function when the sketches have been approved and the working drawings are in preparation. Stanchion and wall foundations, doors, windows, finishings, sanitary fittings, joinery fitments, lighting fittings—and a host of other items of electrical equipment—radiators, ironmongery and colour decoration can all be detailed on a few sheets of typical drawings, supplemented by schedules to show where each type applies. Some of these can most conveniently be included on the drawings, but others can be produced in typescript and thereby save labour in the drawing office. The schedules are equally helpful to the client, the surveyors, and the contractors; and they are a godsend to that large class of individuals who find it physically impossible to understand drawings, whether they are made on linen, or paper, or scratched on wet plaster with an umbrella.

On the broad issue between the use of steel and reinforced concrete for framing, it is a fact that the former is in much more common use in single-storey factories. In multi-storey buildings the use of the two systems is more evenly divided, but for industrial purposes steel framing always has the great advantage that it can be strengthened and altered more easily than a reinforced concrete frame, to meet the changing requirements of the manufacturer.

The book of the 1949 Conference contains a most informative article by Mr. Felix Samuely on structural systems for single-storey factories, and the subject of daylighting has been dealt with fully by Mr. W. A. Allen and Mr. J. B. Bickerdike, in articles which have been published in the JOURNAL. These two subjects are closely interlocked, because the spacing and arrangement of the framing has to be considered not only from the point of view of the plant lay-out but also from the aspect of daylighting. On the question of top light the traditional arrangements in this country are the sawtooth north-light roof and the span roof with a proportion of each slope glazed. America, on the other hand, has largely rejected these forms in favour of the clerestory or monitor type.

Fig. 10 shows the roof of a tube factory recently completed at Kirkby near Liverpool for I.C.I. Ltd., to the design of Sir Percy Thomas and Son. The roof is of the span type with very flat pitches, supported on welded portal frames. The roof sheeting is of aluminium in a V-beam section with 'Perspex' sheetlights arranged as shown.

On other jobs I have found the appearance of sheet-lighted roofs spotty and somewhat depressing, but there the sheets have been of black protected steel and it may be the acute contrast between the sheets and the lights which is irritating. Certainly in this example the general appearance is of uniform lightness, although it will be noticed that there is considerable glare reflected from the floor. This type of glazing is generally suitable only in certain types of engineering workshops where the roofs are not lined, and where other arrangements are being made for ventilation.

This factory comprises two bays each 90 ft. wide, 1,530 ft. long and 30 ft. high to the eaves. The whole of the steelwork has been welded, and the clean lines of the frames and their stiffeners will be noted. In the steeper pitched sections at the eaves and valley the sheeting has been covered with light-weight concrete and felt to form gutters which run the full length of the building and discharge only at the ends. This, I think, is a particularly interesting feature.

I think a very adequate retort to the critics of the north-light roof is shown in Fig. 11; it is a view of the spinning shed in the Paton and Baldwin woollen mills at Darlington, completed about 18 months ago to the design of Sir Alexander Gibb and Partners. Great care was taken on this job to provide the minimum obstruction to the roof surfaces, and the high degree of light reflection has to a large extent eliminated the shadows usually associated with this arrangement of glazing. The arrangement of the box girders in the north-light slope, and the absence of diagonal members in them, will be noted. The ventilation trunking has also been enclosed at the ridge level. All these refinements must have cost money, but the result is there to be seen.

Both north-light and monitor glazing have this advantage over glazing in span roofs that the glass is set either at a very steep pitch or vertical. This ensures that the connections at top and bottom of the glass will be watertight, and that condensation will run down the inner face of the glass to the sill, where it can be led out through the roof. The Americans usually make the upper parts of their monitor rooflights vertical, and set the glass in sashes, instead of glazing bars. The sashes are pivoted and operated by gearing, whereas in this country we generally use fixed ranges of glazing and provide extraction ventilators at the ridge. The American practice is preferable but its cost is undoubtedly higher.

A monitor for north and south light has been used in this country, notably by Messrs. Yorke, Rosenberg, and Mardell in one of the factories on the Team Valley Estate. On the north side of these is patent glazing at a steep pitch (75 degrees or so). The south side has pivoted sashes set vertically with a protecting eaves over to cut out the direct rays of the sun during most of the year. This arrangement gives a very even distribution of daylight at the bench level.

Services. A series of lectures could be devoted to the subject of the services, but I for one would not be competent to give them. The heating and electrical services, particularly, require more specialized knowledge than the average architect possesses, and it is usual nowadays for consulting engineers to be employed to design these installations. This does not mean that the architect can dismiss them from his mind; on the contrary, the arrangements for these

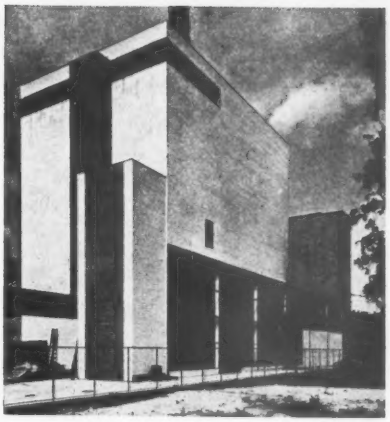


Fig. 9: Factory boiler house, Berlin. Architect, Arthur Korn

and all the other services demand his skill as a co-ordinator. Plant engineers and other representatives of the owners have to be persuaded to get down to consideration of all their requirements; and meetings have to be convened to discuss these with the consultants and officials of the supply authorities concerned. As a deficiency in one or other of the public services may jeopardize the whole scheme, it is essential that preliminary estimates of the loads on the mains should be submitted to the authorities and assurance obtained that supplies will be available when required.

At a later stage all the consultants' drawings and schedules have to be checked and approved. Various provisions, such as ducts, trenches, chases in walls, and holes in floors and roofs, are usually required and should be detailed on the structural drawings.

Finishings. In the matter of finishings the architect is always well advised to see what has been used elsewhere in similar factories and processes, and to specify what has been found best in practice. It is another subject on which many plant engineers and works managers hold strong views, and their experience can be very helpful.

The most usual floor finish in factories is granolithic, and if properly laid it is perfectly satisfactory for a wide range of industries. The emphasis is on the proper laying, and there are various schools of thought on the subject. My experience for what it is worth is that the finish should be put down, in two layers, not more than 12 hours after each panel of the concrete structural slab has been poured; and that the slab should be laid chequer pattern in panels not larger than 200 sq. ft. with building paper joints between. Another floor finish with very wide application is hardwood laid either in blocks or strips. A really good hardwood, well laid and well kept, makes a floor of which everyone concerned can be proud.

The usual finish of walls is flush-pointed brickwork, painted or distempered, but here again the finish found best for each

Fig. 10: Tube factory for I.C.I., Ltd., Kirkby, Liverpool. Architects, Sir Percy Thomas and Son [*F/A*]

Fig. 11: Wool spinning mill for Messrs. Paton and Baldwin, Darlington. Architects, Sir Alexander Gibb and Partners.

particular industry or process should be used.

Framed roofs are generally lined with some kind of boarding to reduce the heat loss through the roof sheeting. A point to watch in this connection is that with many processes in which steam or hot water are used, the air becomes saturated with moisture and in such conditions some board materials revert to their original state of pulp.

Colour decoration is a subject on which few people are without some ideas and opinions, and it is not always simple to persuade the client to accept your suggestions. If I may venture a word of advice in such cases it is that you should let your clients browse through the British Colour Council's excellent publication *Colour and Lighting in Factories and Offices*. After the colours have been selected it is always advisable for the shades to be tried out at full scale on the walls of one of the smaller rooms before the painter is allowed to proceed with the final coats. Even with these precautions there are frequently heartburnings about the appearance of colours in the mass, as compared to those in selected samples but, as in other things, time is a great healer.

Conclusion. In conclusion, I appreciate there are various aspects of this subject of industrial buildings which I have not mentioned. Welfare, for instance, and all its ramifications in the planning of the modern factory. My only excuse is a very good one; I have talked long enough. Someone else on some other occasion can take up the tale, because fresh chapters are being written every year. There will always be new jobs to look at and new ideas to talk about.

DISCUSSION

Dr. R. Bradbury [*F*] (City Architect and Director of Housing, Liverpool): I am very pleased to be honoured today in being asked to propose a vote of thanks to Mr. Wylie, because we in Liverpool have a very great interest in this question of factory design. I have one minor complaint with Mr. Wylie's paper, in that he did not mention the fact that Liverpool, in 1921, took special powers, and as a result of those powers, has been able to develop to the best advantage its own municipal industrial estates which now employ some 32,000 workers in some 200 different factories, wide apart. However, I know Mr. Wylie found it difficult to take in so many aspects of factory design and I think he has done a remarkably fine job in giving us such a comprehensive view of industrial architecture.

I was rather disturbed last night at the dinner to hear it said that architecture has had to be put on the shelf. I thank Mr. Wylie for having shown us that this is not true, because we have seen the fine standard of design in industrial architecture.

Mr. Frank McArdle [*F*] (Hon. Treasurer, Royal Society of Ulster Architects): It is a very great honour for me to be asked to second the vote of thanks to Mr. Wylie, for what I would call a most interesting and instructive paper. I have had a great deal to do with factories, particularly in my early days. I remember when in workshops lighting was by plain gas jets, with the worker having to twist himself into every conceivable shape after dark to kill the shadows on his bench.

After that I was associated with textile machinery and textile buildings, where conditions were simply appalling. That brings back one aspect of factory design and construction which has been a great thing for the workers. I remember where we made experiments in a particular building for the extraction of dust—it was a textile firm—and we extracted something in the neighbourhood of $\frac{3}{4}$ ton of dust per week. The place after extraction was as bright and cheery as is this room.

After that another stage came along. I remember the building of a large engineering concern, for which the drawings had all been done by engineering draughtsmen and not by architects. The machines were all put down the centre, to give the most floor space available. Only after that did the question of windows get secondary consideration. In such places great attention was paid to the interior and to business efficiency, but none was paid to the exterior of the buildings.

Mr. D. Wynne-Thomas [*F*]: I am not going to attempt to add anything to Mr. Wylie's excellent paper, but I am reminded of an incident when I was a young man working for an industrial firm in Lancashire. The owner asked me why I had put a parapet wall round the factory. 'Well, and what d'you call this?' he asked me. I explained that it was a parapet wall to give the building a better architectural appearance. To which he retorted, 'And will the cotton spin any better?'

Mr. S. W. Milburn, M.B.E., M.C., T.D. [*F*]: On the North-Eastern Trading Estate we had hundreds of factories built, but after the war we realised that the policy of bringing all workers into one area was most undesirable, because of housing, transport and other difficulties. The Trading Estate Company have therefore now set out to create 30 or 40 small trading estates instead of one large one. That is to say, the factories have been taken to the centres of population, rather than the population having to go to the factories.

Mr. Wylie: Mr. Wynne-Thomas referred to the very common attitude which was taken up by factory owners until recently. They had just no time for anything that didn't give an immediate return in more spools of cotton. Now, however, there is a new outlook and factory owners are coming to realise that a well-planned factory earns money for them. A factory placed in pleasant surroundings gives workers a sense of responsibility and a sense of pride which have a direct incentive to increased production.

Mr. Milburn referred to further developments in the North-Eastern Trading Estates. I can only apologise to both Mr. Milburn and to Dr. Bradbury for omitting to enlarge on developments in their respective areas by reason of the fact that I have had to cover a fair amount of ground in this paper.

Presentation of Housing Medals and Diplomas

by the Minister of Local Government and Planning. At the R.I.B.A., 7 June 1951

Mr. John L. Denman, F.S.A. [*F*], Vice-President, R.I.B.A., in the Chair

Mr. J. L. Denman [*F*]: It is my privilege to preside today on behalf of our President, Mr. Graham Henderson, and it is a great pleasure to do so on the occasion of your visit, Sir, for the second presentation of regional awards inaugurated last year by your predecessor, for the best designed local authority urban and rural housing estates in England and Wales.

As our President then stressed it was and still remains a significant occasion, since it is the first time that the state, apart from competitions for buildings of special importance, has initiated a comprehensive scheme for the encouragement of good architectural design, for projects closely allied with the daily life of the community.

These awards provide encouragement not only to the architect but to all who are engaged under him. If an architect sets a high standard, he invariably finds a ready response to his leadership from the contractor, the foreman and the craftsmen. How often one hears the better type of craftsman express his delight and pride in good workmanship and his craving for the opportunity to undertake it. For this reason one would welcome a similar diploma for the contractor as is presented to the architect and the Council. One wonders too if the Councils could not offer some recognition to those of their tenants who bestow a loving care and appreciation on their homes.

Our President, Mr. Graham Henderson, is the first member of our Institute practising north of the Tweed to preside over us. As a Scot he has expressed the hope that Scotland may come within this scheme—possibly in conjunction with the private Saltire Society Scheme in co-operation with the Departnent of Health for Scotland. I am confident that no words of mine are necessary to commend to you, Sir, this extension of your appreciation and encouragement to our friends across the border.

You have, Mr. Minister, recently issued some extremely helpful instructions to all who are engaged upon this difficult problem, now rendered even more difficult by the economic circumstances and rising costs which surround us. Your injunctions will be greatly welcomed by all concerned, for whilst you insist upon the maintenance of minimum standards, including the sizes of individual rooms, you agree that the space normally occupied for internal communication between the rooms may be reduced in conjunction with other considerations which you have enumerated.

There is an exhibition in the ante-room of some of the winning schemes. We appreciate the valiant work and organization that this selection of awards throughout the country has entailed, especially upon Mr. Forshaw and his staff, and also upon the Regional Awards Committees. May I, on behalf of our profession, express to all concerned our most cordial thanks, and in particular to you, Sir, for your personal interest and attendance here this afternoon to present these awards to us.

The Rt. Hon. Hugh Dalton, M.P., Minister of Local Government and Planning. In the office that I now hold there are many agreeable occasions, and this is certainly one of them. The occasions which I find most agreeable bring me into contact with the men and women who are actually building, or organising the building of the new and better Britain which is our dream.

I have heard with great interest of the competition which was instituted last year among local authorities in regard to housing schemes; my predecessor and friend, Mr. Aneurin Bevan, I know took a great interest in it; he spoke to me of it long before it was decided that I should hold this office.

Last year was the first year of the award, and covered the period from 1945 to the end of 1949; today we are presenting awards for schemes which were completed up to the end of 1950. I have seen photographs of many of the schemes, and I feel sure that the judges have done their work well. There is a predominance of architects on all the Selection Committees!

I was glad you liked the Circular I lately put out. I don't regard it as a revolutionary circular; we can't alter everything at once; but it does improve some things a little and it does give more scope for variety and experimentation and for the variation of all those items which are not regarded as strictly essential, such as the size of living rooms. On that last point we are still inflexible, but on almost everything else we are anxious to get new ideas—I and my advisers. I have very great confidence in my advisers in my Department, in particular Mr. Forshaw, who first attracted my admiration for the work he did in building those splendid functional buildings which may be seen in many parts of the coalfields —pithead baths and so on. I am very grateful to him and others of my staff for their help and for their advice on all these matters—though I don't always take the advice blindly! They have contributed much to the success of the scheme which culminates in this presentation today.

I hope architects will continue to use their ingenuity and inventiveness in finding ways of meeting that old task—the task of providing for every family a suitable dwelling, decent and habitable. Particularly are new approaches necessary in these days when costs are rising (and will perhaps go on rising) and it is essential to economise both in money and in material. I am quite sure from what I have seen of these various schemes and from what I see of other schemes when I visit different parts of the country that we have many British architects today who are in fact rendering such service.

I tried in the Circular to emphasize one important point that not all local authorities have yet, I am afraid, realized; namely, the importance of having their plans prepared by qualified architects. I hope the number of authorities who don't do this will diminish. We have laid it down that where essential standards are maintained there is no need for detailed plans to be submitted to my Department.

I am told that there are eighteen prize-winners out of 358 entrants. That gives almost one in twenty. It is a good entry, but I hope that next year it may perhaps be even better. Your suggestion, Mr. Chairman, for extending the awards to contractors and others who take an important part in it is worthy of careful consideration; we are anxious to pay honour to all to whom it is conspicuously due.

I am very much interested to read the list of the awards to authorities, and delighted to see one of the new town corporations among them. I am very anxious that the new towns should make headway, and am glad to see Hemel Hempstead Corporation is today in the list.

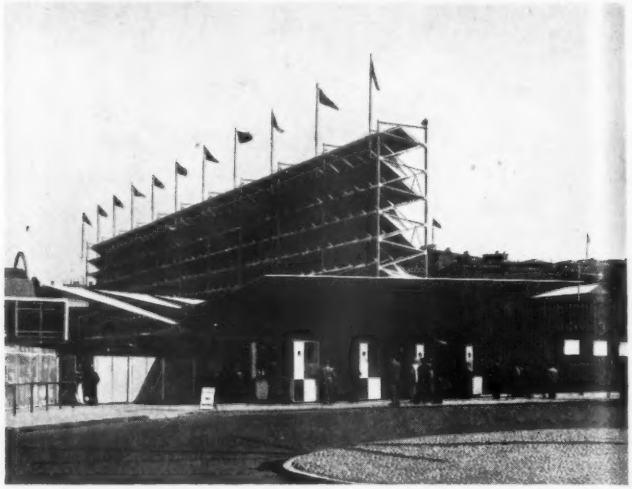
There does appear, reading down the list, to be a very well-assorted selection of authorities. Particularly I am glad to see some of the small authorities, because I think some of the best housing work today is being done by them.

Scotland is not in this scheme yet, it seems. I don't quite know why. Certainly, if I can be of any assistance in suggesting to the Secretary of State for Scotland that Scotland should come in, and if it is desired by those responsible for organizing the scheme, I will try.

I have very great pleasure in being here today and in wishing all those who took part in the work during this year great success for the future, and in congratulating all those who won prizes for their work. We are building for the future, and are conscious of the great responsibility that rests on us, and of the tremendous opportunity of serving the future generations of our fellow men and women.

The Minister then presented the medals and certificates.

The Mayor of Stoke Newington, Councillor R. A. Robertson, then proposed a vote of thanks to the Minister, who briefly responded.



Above: The Skylon (Architects: Powell and Moya [*A/A*]) seen from the Sea and Ships pavilion. Right: The reinforced concrete canopy over the Chicheley Street gate with the York Road screen (Architects: Architects' Co-operative Partnership [*A/A*])

The South Bank Exhibition Reviewed

By Anthony M. Chitty, M.A. (Cantab), A.A.Dipl., A.M.T.P.I. [*F*]

With photographs by Herbert Felton, F.R.P.S.

AS THE BRIGHT image of the camera obscura gains in intensity from the surrounding gloom, so the crowded 27-acre site of the South Bank Exhibition forms a bright focus amid the murk of Victorian engineering. When the eye has grown somewhat used to the movement, the colour and the sparkle upon the screen, a number of satisfactory impressions can be received. Only one of these impressions will be dealt with here: the success of the exhibition as an experimental playground for showman, engineer and architect.

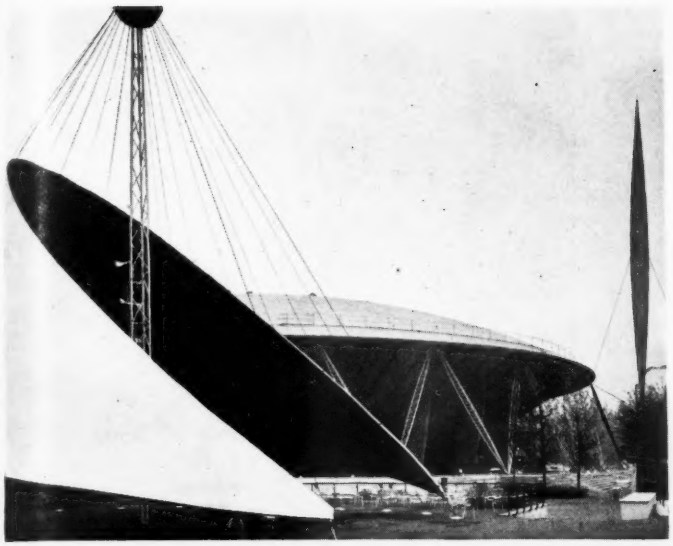
The buff ill-printed forms, the oblique approach, the maddening tempo of the regional headquarters, the cups of cold tea and lost files, the idiot decision—these influences, as baleful to the adult as the clawing fingers of the nightmare to a child, were lifted for a while and courage, gaiety and imagination took charge so that the South Bank architects, guided by Casson's skilful hand, have brought forth magical results. Not least of these is the experimental use of space, a juggling with three dimensions. The architect's most difficult task is to lift his mind and his imagination from the flat drawing board and to foresee his buildings in three dimensions, how they will look in moving perspective, how they will fit with site, with neighbours and with nature. A great defect of the last 80 years of architecture has been the tendency to think too much in two dimensions, a failure to see that man's view of building is not static but in motion, embracing a constantly shifting kaleidoscope of lines and surfaces, of light and shadow, skyline and composition. For the great art of English landscape, of which 18th century architecture was a part, was lost in the frenzy of the industrial era. The South Bank exhibition is model-making in the large, and what is learnt from its trial and error will be of help in the difficult landscape problems that face us: the sprawl of housing, the blending of large and small buildings in the new towns, the placing of sculpture and murals, the disposition and design of the larger industrial plant.

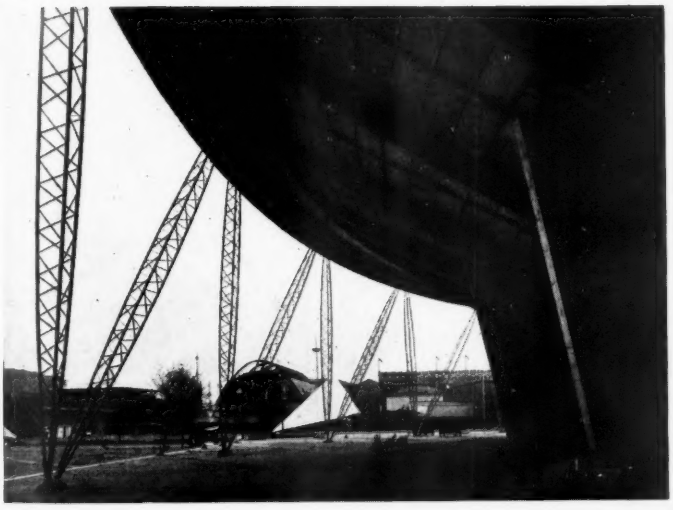
The exhibition of 1851 was informed by a strong moral trend, as can be seen throughout its illustrated catalogue. This is amusingly reflected in the description of the 'vertical feature' of that exhibition of which it is said: 'the inventor is a Mr. Facey who, we understand, is a working man, who by becoming a member of the Temperance Society felt it necessary to do something to fill up the vacancy of his idle hours. This is the result of his labour and ingenuity'. No such principles have inspired the designers of our Vertical Feature, one imagines, but rather a desire to juggle with objects in space. A similar motive lay behind Deinocrates' design for the mausoleum of Arsinoë some 20 centuries ago. Her iron effigy was to be invisibly suspended for ever in mid-air beneath a loadstone vault whose magnetic powers were equally adjusted.

On the South Bank considerable attention has been given to this problem of using three dimensions to the full, and to the advantage of the circulating sightseers. Two aspects of the problem can be studied. The first is the subtle breaking down of the limited site into a series of small enclosures between large buildings, somewhat in the Italian piazza tradition, though it is true that the buildings themselves have a certain harshness and dissimilarity which would prevent any permanent harmony as with Italian Renaissance building. This picturesque arrangement is lightened and varied at some places by an opening out to give views of the London panorama: Westminster, Whitehall, the City with St. Paul's and the traffic on the river Thames. Such a layout is vastly different from the Crystal Palace, with its distribution of exhibits in a single hall, and from the arid, tiring monumentality of Wembley and the 1937 Paris exhibition.

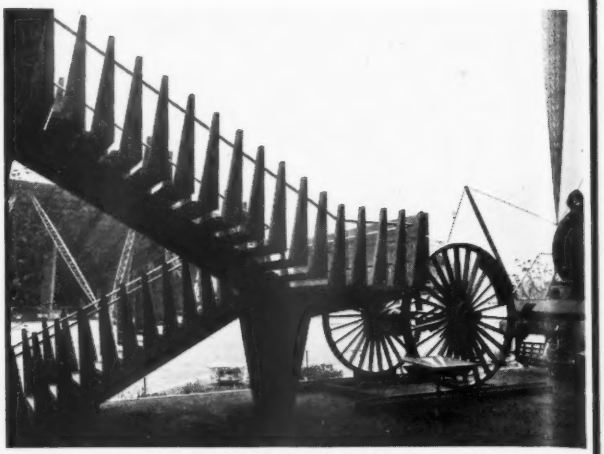
The second approach to landscape is the

(*continued on page* 320)





Views of the Dome of Discovery (Architect: Ralph Tubbs [*A*]). The dome, which is 365 ft. in diameter, is of aluminium framing and sheeting and is supported by the pin-jointed lattice units seen in the photographs, the largest members of the units being 3 in. steel tubes. The building is artificially lit; the main entrance (bottom right) is downward into the heart of the building. The exhibits illustrate British discoveries and exploration. The top left photograph also shows one of the two 'cones' (Architect: H. T. Cadbury Brown [*A*], which mark the sequences of the Land and People of Britain

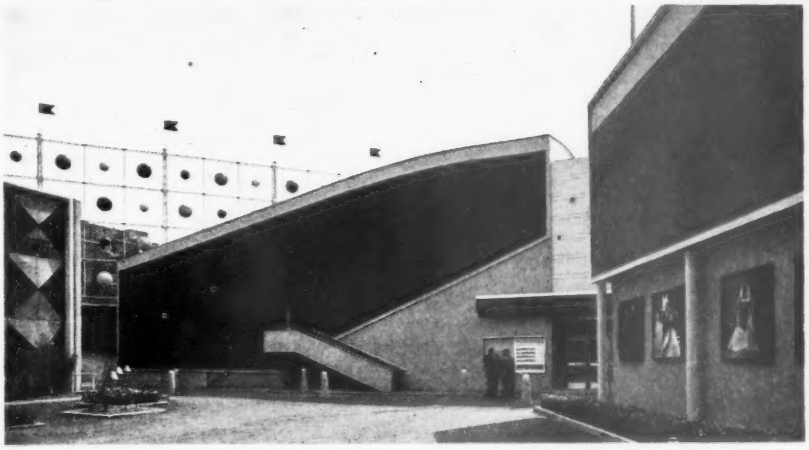


Precast concrete treads combined with balusters, carried on a central string and single tapering column

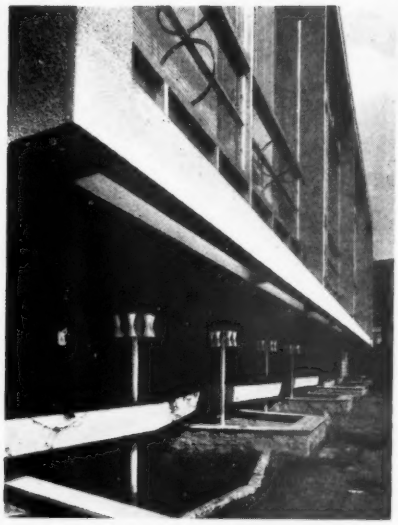
The Transport pavilion (Architects: Arcon [*F*/*A*/*A*]) is a steel framed structure with some reinforced concrete and is sheeted with asbestos-cement and glazing. Many novel forms of steel construction are used, in which welding plays an important part. The building is 250 ft. long, 60 ft. high, has three galleries and an open ground floor. The staircases shown above, which differ in details, have central reinforced concrete strings with cantilever treads on each side

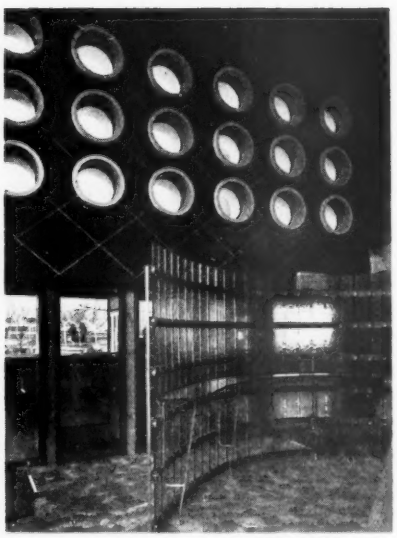
General view of the Transport pavilion facing the Dome of Discovery in the upstream section. The glass front of the building can be opened to allow the entry and removal of aircraft. The Communications section is on the left, and the staircase at the river end of it below

The ramp on the corner of the Transport pavilion to admit vehicles to the interior

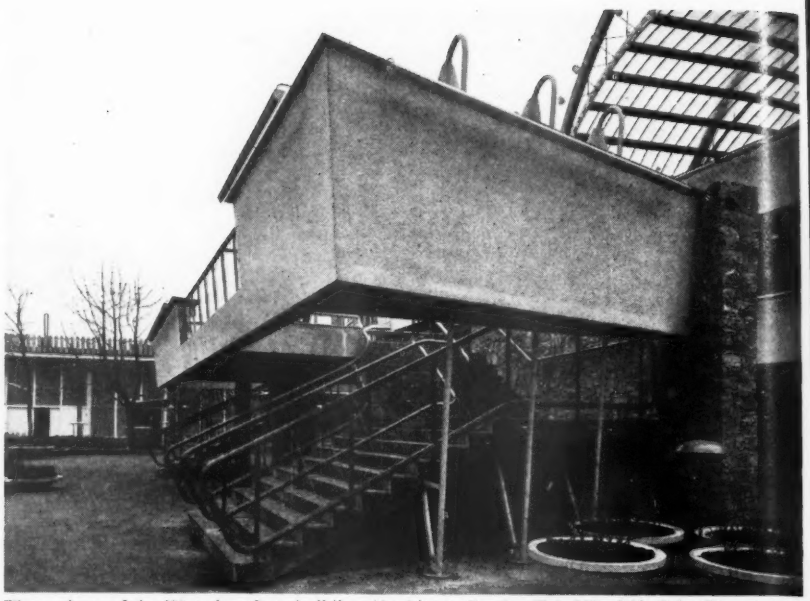


Right: The Telekinema with, on the right, the Television pavilion (Architect: Wells-Coates, O.B.E. [*F*]). Below right: The Lion and the Unicorn pavilion (Architects: R. Y. Goodden [*A*] and R. D. Russell) is a rectangular building with timber lamella roof and wall panels of cement rendering sprayed on metal lathing





A corner of the bar in the Waterloo Gate. (Interior decoration by Kenneth Cheesman [*L*])



Three views of the Waterloo Gate building (Architect: Gordon Tait [*F*] of Sir John Burnet, Tait and Partners) which covers the escalator head from Waterloo Underground station and houses management, police, first aid offices etc. The structure is of light frame, part steel and part reinforced concrete, the roof being suspended from laminated wood arches

small scale and more intimate handling of circulation within buildings, where the spectator is impelled not only forwards but up and down and round about in a most satisfactory manner. Such techniques as these have lessons for grouping and crowd movement at the centre of a new town, especially where varied contours are a feature of the plan.

An incidental achievement of this method of approach has been those beautiful contrasts between the rudeness of Victorian engineering and the smoothness of the materials affected today; the starkness of the exhibition buildings and the romance of Whitehall Court and Pugin's Westminster; the strong unfettered waterway which bounds the site and the tamed and placid ornamental pools.

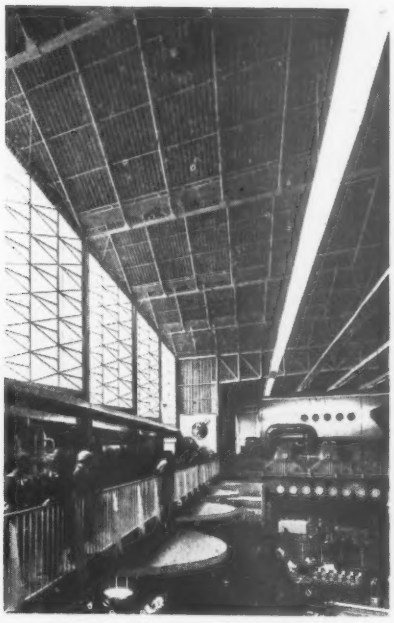
Experiment is not confined to layout; it embraces the use of building materials in a way that in the long run will serve architect and manufacturer alike. We need not dwell at length on this subject, as the implications will be obvious to every architect, but in passing may be noted the increasing use of steel tube for structural work, and the slenderness and economy that result. The roof work of the Transport and of the Power and Production pavilions is most successful and in both cases the refinement of this type of engineering is emphasized by a really new and startling use of colour on structure which holds great promise for the treatment of factories and industrial plant.

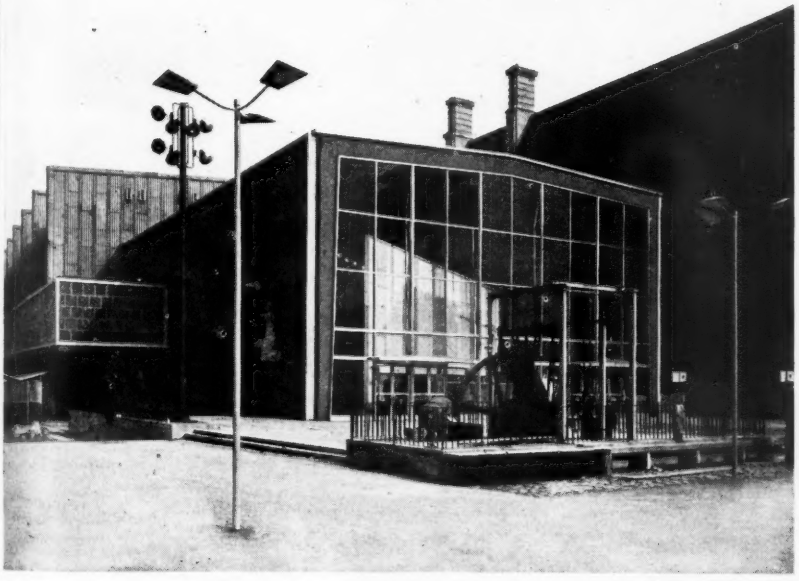
The use of aluminium, a material still in its testing stage (unlike steel whose every reaction is broadly known), is to be seen in the Dome of Discovery and in many smaller constructions, even down to the excellent use of anodised capping for external balustrades.

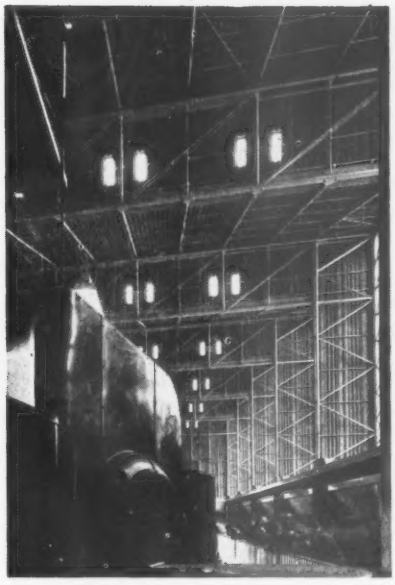
Interesting trial has been made of canvas, with a few good results and more unsuccessful. The conclusion is reached that this is a material suitable for decorative purposes and for tents to be used for very temporary exhibitions such as the Flower Show or the Bath and West, or even for May Week, but that it is not sufficiently reliable for longer exhibitions where valuable and perishable material has to be safeguarded from the weather. A new and exciting use for canvas is to be seen at the back of the Country Pavilion where it is used to form a series of 'quebra sol' vanes. The various experiments tried with self-cleansing treatments, spring-tensioning cable and proofing are not on the whole successful as a means for making canvas more suitable for permanent building purposes, and fading of the brighter colours is noticeable already.

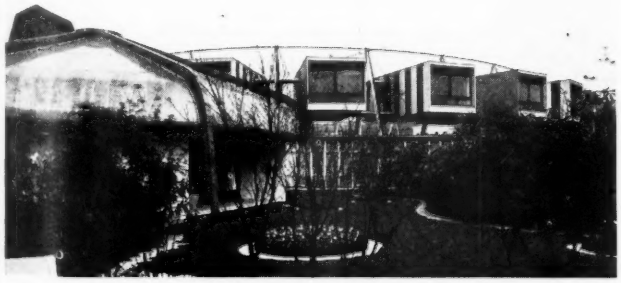
Just as the Crystal Palace had 'the largest piece of coal in the world', so we have made 'the largest sheet of glass in the world'—a plate glass window 50 ft. by 8 ft. high. This is indeed an achievement by the manufacturers, including its long journey from St. Helen's in a special crate upon a special wagon at six miles per hour and the problem of hoisting it into position by electric suction grips, with a standby generator in case of a power cut. But when all is done the sheet of glass is not a window, for it is a mere exhibit upon a gallery, not to be touched and without a view inwards or out.

Though the exhibition is an undoubted success, especially from the point of view of the architect, who has taken his opportunity and used it to the full, one can not









Four views of the Power and Production pavilion (Architect: G. Grenfell Baines [*A*] in collaboration with H. J. Reifenberg). A welded tubular steel structure 300 ft. by 100 ft. and 50 ft. high, covered externally with corrugated asbestos, glazing and cast concrete panels. Top left is the main entrance stair. Bottom left: The Royal pavilion and administration offices (Architects: Architects' Co-operative Partnership [*A/A*])

fail to notice the corresponding failure by the display designer to take his opportunity in both hands. The art of display has gone through a rapid series of changes since the excesses of 'Britain Can Make It', where the technique of exhibiting overwhelmed the material exhibited. The technique of today has been refined and simplified considerably and is now on a much more balanced footing. Yet it is still hampered by a pettifogging small scale treatment (as at Lansbury for instance)

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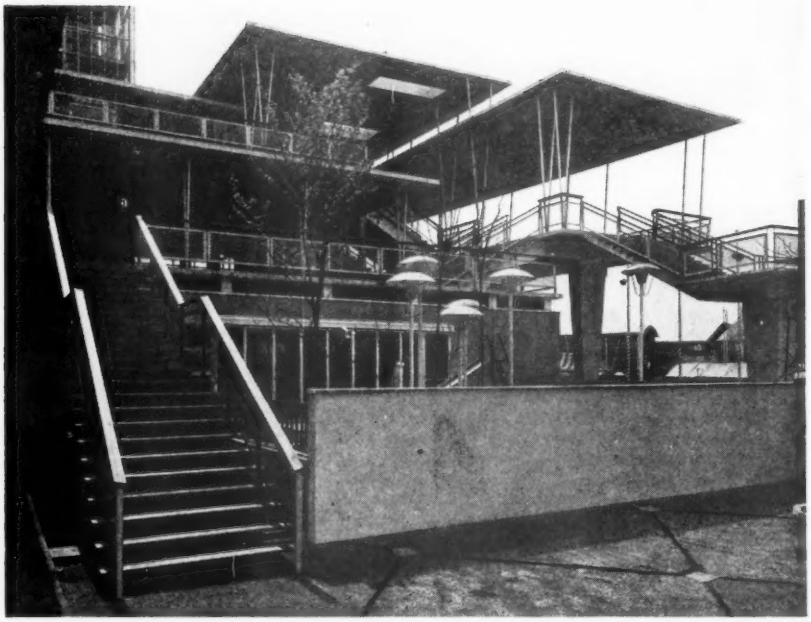
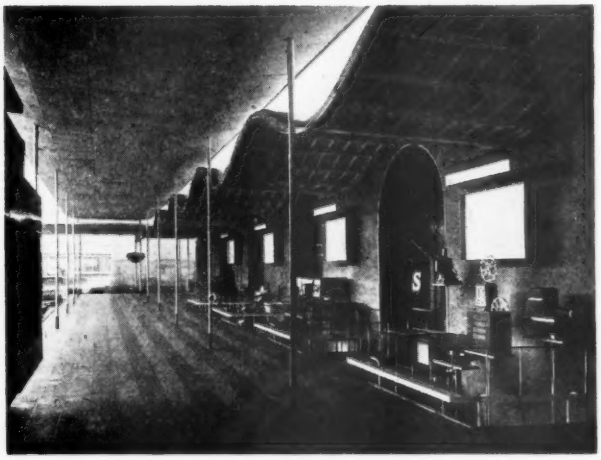
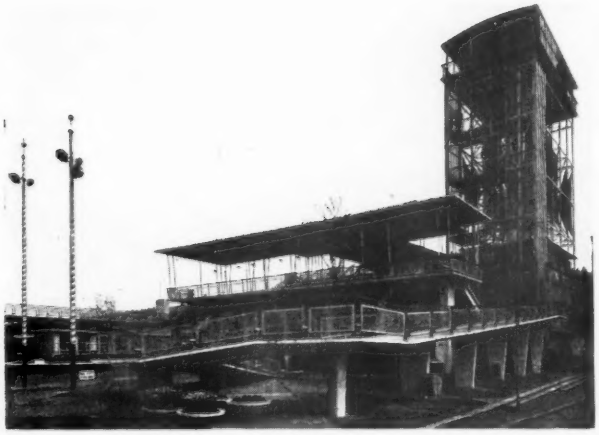
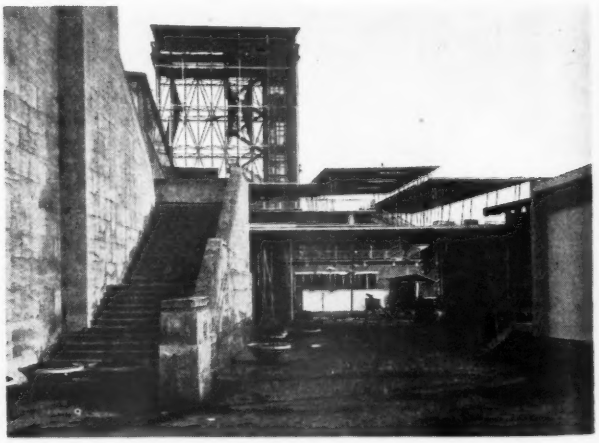


Left and at bottom of page: Three views of the Waterloo Bridge gate leading down from Waterloo Bridge Road; the New Schools section is beneath (Architects: Maxwell Fry and Jane Drew [*F/F*]). The structure is mainly of reinforced concrete with the roof planes supported on light tubular steel struts. The tower is of steel frame and glazing and has a viewing platform at a height of 80 ft., reached by lift. Middle left: Part of the New Schools section

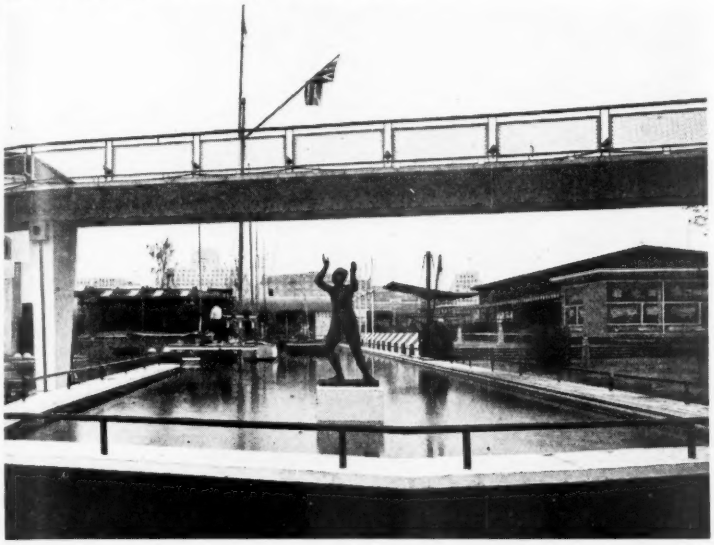
Below: The Sport section (Architects: Gordon and Ursula Bowyer [*A/A*]) is an openly planned rectangular structure with gallery and is of prefabricated steel construction

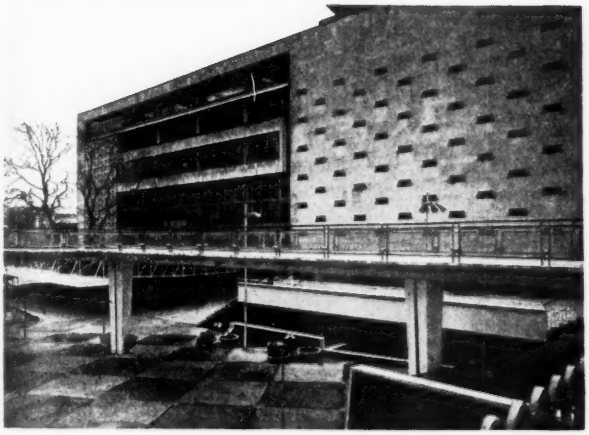


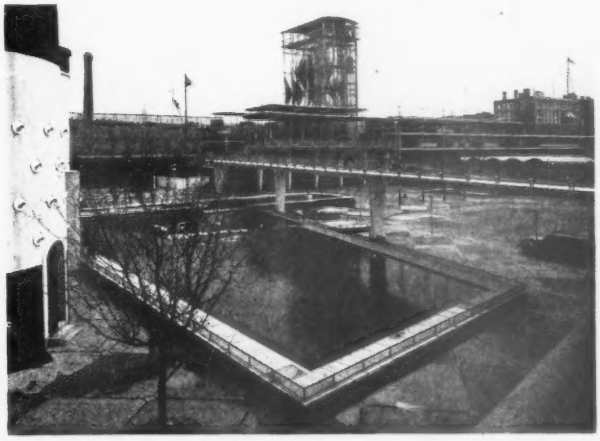


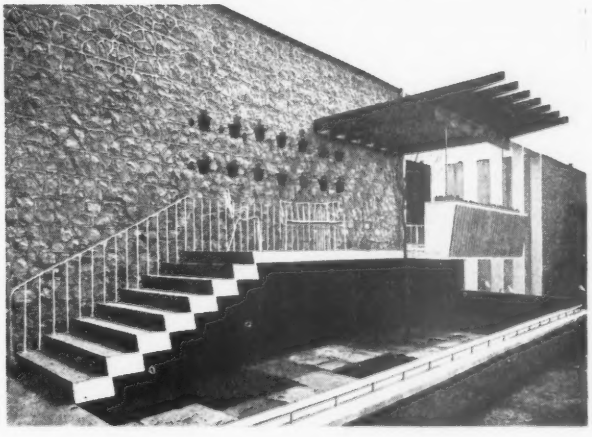


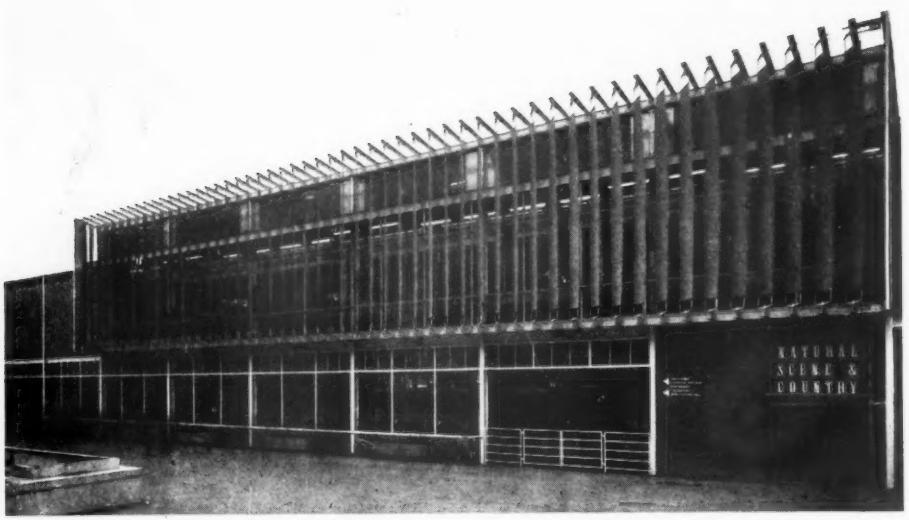
The prestressed concrete bridge approach to the Royal Festival Hall begins at the Waterloo gate (right picture), carries over the pool (picture below), turns past the flank of the Hall (middle left picture) and ends at the main river terrace of the Hall from which the visitor can look back to the Waterloo Gate (middle right picture). Bottom pictures: Two sections of the Homes and Gardens pavilion (Architect: R. Vaughan, A.A.Dipl. [*A*] in collaboration with Bronek Katz)





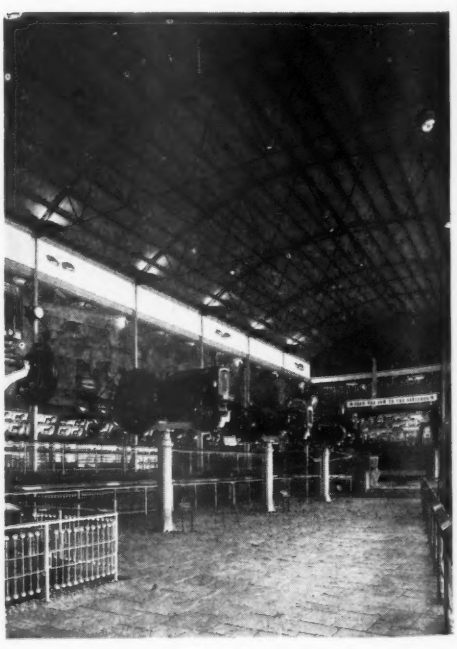


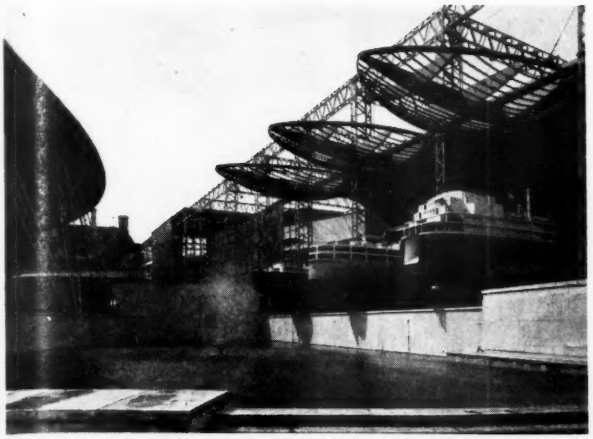




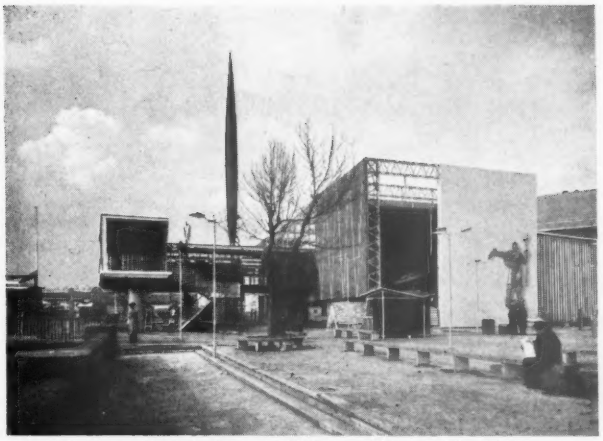
The Country pavilion (Architect: Brian O'Rorke, A.R.A. [F.]) is a Dutch barn type of structure 250 ft. by 100 ft. by 50 ft. high with one side opening on a garden setting. The top picture is of the front which faces the Dome of Discovery and is fitted with adjustable vertical canvas sunblinds

which is often unsuited to the material shown and distracting to the public. Worse still, a sense of scale is too often entirely missing, as in the Dome of Discovery, where the magnificent conception of an inverted saucer as big as Bedford Square and carried on a filigree of knitting needles has been destroyed first by cloaking the engineering forms and then by a fussy chaos of small unrelated exhibits. The result is a tragedy. An equally unfortunate example is in the fine Power and Production building, where the wonder and appreciation of exciting plant and products would have been enhanced by a severe, simple, plain and restful background. As it is, such an appreciation is hindered by an irritating array of cogwheels, colour and jazz patterns. No wonder one of the machine operators was taken away with a brainstorm! The designer still appears to have little real grasp of the function of his art and of its limitations, of the essential need for harmony and scale relationship with the material exhibited and with the building that gives it shelter. Perhaps some part of the blame lies with the Festival administration, which drew so sharp a line between building and display contracts and failed to encourage a real partnership



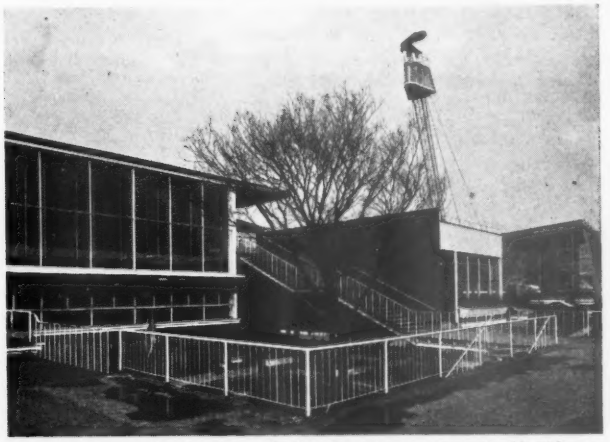


The Sea and Ships pavilion seen across a pool and fountain

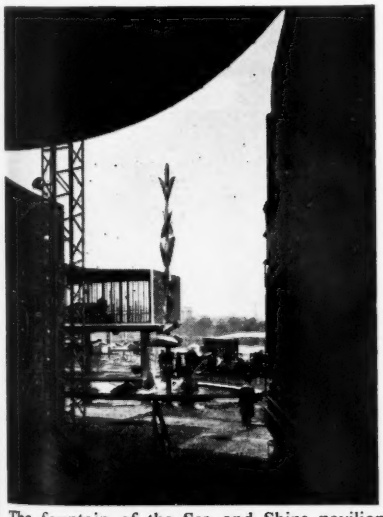


The entrance end of the Sea and Ships pavilion and the Skylon

A wing of the Sea and Ships pavilion with staircase carried on a single string at one side, the whole in welded steel



Looking from the terrace of the Regatta restaurant (Architects: Alexander Gibson, A.A.Dipl. [*A*] and Mischa Black)



The fountain of the Sea and Ships pavilion (Architect: Basil Spence, O.B.E. [*F*]) viewed from the interior of the pavilion. The main structure consists of steel lattice frames

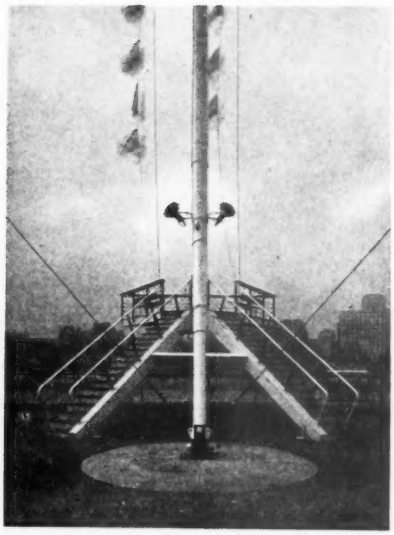
between the two. Two buildings that are notable as exceptions to this criticism are the Country Pavilion and the Lion and Unicorn, where display and architecture are satisfactorily integrated.

It is not proposed to discuss here the architecture in detail, but a bouquet must be handed to the designers of the Lion and Unicorn, a building of great charm and beauty, having the essential qualities of exhibition art rather than architecture, beautifully equipped and finished in every detail.

There is a further field for experiment in which we have (it is clear from the result) too little experience; the placing of sculpture and mural paintings in relation to buildings. The choice of sculpture for the South Bank has been erratic. The distinguished work of Moore, Skeaping and Dobson stands head and shoulders above the rest, but hardly a single work was sited comfortably. The strong stone Skeaping pair should have rested among daisies and green grass upon the ground and not upon an ugly plinth amidst a sea of in situ concrete. Many sculptures are spoiled by a fussy background and not enough attention to adjacent materials. As to the paintings, Bawden's end wall to the Lion and Unicorn was particularly successful as adornment to a building, but most others were mere appliqué pictures, pleasant enough in themselves, but not murals in any sense; not decorations to a building, developed along with it.

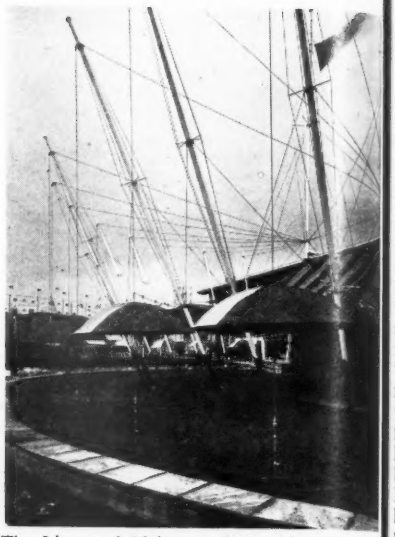
What is the sum of impressions upon the South Bank? Undoubtedly the exhibition is an immense success, a big step forward from the great exhibitions of the inter-war years, whichever way you view it. As architecture it reveals also a closer blending of art and engineering than has been seen before, a refinement of a structural æsthetic that began to grow some time ago (did it perhaps begin in the age of the Crystal Palace?), a further step in the union of science and art.

Editor's note: In this article we have attributed to their architects the individual buildings illustrated. It should be realized, however, that the South Bank Exhibition—a work of great complexity—has been essentially a team job in which many architects, engineers and display designers have co-operated.



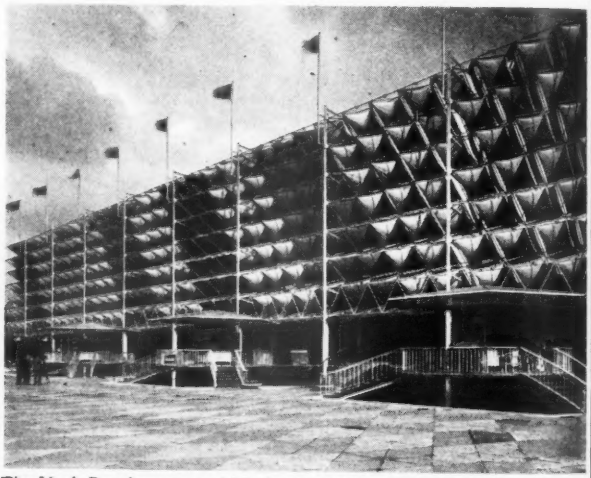
A 'lookout' in the Seaside display (Architects: E. Brown [*L*] and P. H. Chamberlin [*A*])

The aluminium 'cones' in the upstream section (Architect: H. T. Cadbury Brown [*A*])

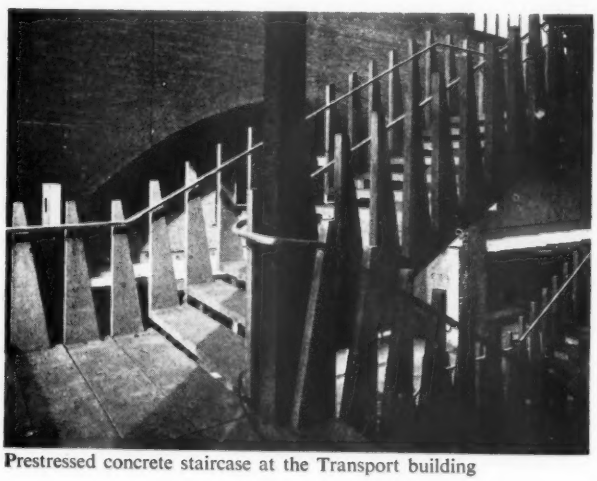


The Lion and Unicorn café (Architects: R. Y. Goodden [*A*] and R. D. Russell)

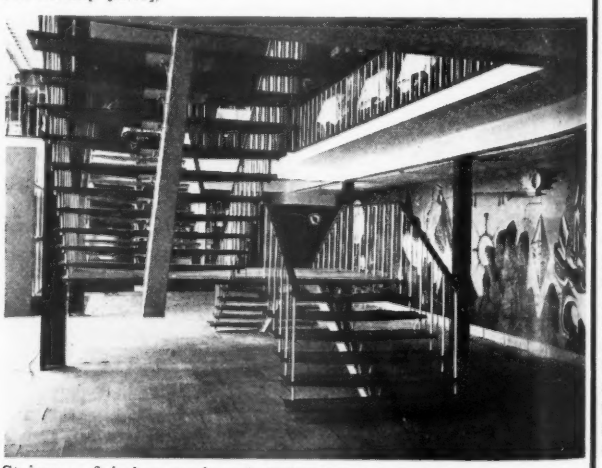
Entrance to 'The People of Britain' display. (Architect: H. T. Cadbury Brown [*A*])



The York Road screen and kiosks (Architects: Architects' Co-operative Partnership [*A/A*])



Prestressed concrete staircase at the Transport building



Staircase of timber treads and steel strings in the Regatta restaurant

Official Revision of Housing Standards

In Circular No. 38/51 the Minister of Local Government and Planning has made certain revisions to the requirements and procedure relative to housing. Rejecting building to a fixed maximum price, the Minister desires to make it clear that the present minimum standards for the sizes of individual rooms and for total living space, as laid down in the Housing Manuals, must continue. Nevertheless, he is prepared to approve schemes in which circulation space (e.g. in passages, halls, landings, etc.) is reduced. On this the Circular says: 'Many able architects have shown that it is possible by skilled planning to maintain these standards within a smaller total superficial area than 900 ft. for a three-bedroom house for five persons, or 750 ft. for a two-bedroom house for four persons. The Minister has now, therefore, decided to leave it to the discretion of local authorities to dispense with the minimum requirements of 900 ft. super for a three-bedroom house for five persons (or of 750 ft. for a two-bedroom house for four persons), provided that the sizes of the individual rooms and the total amounts of living space do not fall below the present standards . . . The general planning of the houses must, of course, accord with modern requirements of comfort and amenity, and there must be no reversion to the kind of pre-war plans which the better building experience of the last five years has shown to be unworthy and obsolete.'

The room areas etc. (in sq. ft.) are as follows: *The Kitchen Living Room House;* kitchen living room 180, sitting room 110, scullery 50. *The Working Kitchen House;* living room where there is no separate dining space 180, living room plus dining space 225, working kitchen 90. *The Dining Kitchen House:* living room 160, dining kitchen 110, bedrooms: first bedroom 135, other double bedrooms 110, single bedrooms 70. *The Aggregate Living Space* is: three-bedroomed house for five persons, 320; two-bedroomed house for four persons, 280.

The Circular continues: 'The Minister has also decided to leave it to the discretion of each local authority to decide whether or not to provide a second W.C. for houses with three bedrooms: where only one W.C. is provided this should be in a separate compartment from the bathroom, but may be on either floor.

'Local authorities have often been urged by this Department to employ qualified technical officers on housing work. The Minister attaches great importance to this, especially if, as a result of this Circular, new plans are being made.

'Such plans, if prepared by a qualified architect, provided they comply with the conditions in this Circular, will not, in pursuance of paragraph 13 of the Appendix to the Circular of 10 February, 1950 (Circular 24/50), require to be submitted for approval to this Department. But the Department will, of course, always be ready to give advice or assistance to local authorities, and it may be helpful if architects, when preparing plans designed to take advantage of the wider discretion now given to them, show these at the sketch stage to Regional Officers.'

The Minister is also willing to leave to the discretion of local authorities whether or not to provide for families of four persons a proportion of houses in which one double and two single bedrooms are provided instead of two double bedrooms. To avoid the danger of overcrowding, the size of the single bedrooms should be within the range of 70 to 80 sq. ft.

The Minister welcomes the increase in numbers of one and two-bedroom houses for occupation by old people and young married couples. He also approves provision of the Duplex house, namely, a three-bedroom house of normal size so planned that it may be temporarily occupied by two small families, usually in separate flats.

Architects' Benevolent Society

Annual General Meeting

The Annual General Meeting of the Architects' Benevolent Society was held on 2 May 1951, in the rooms of the R.I.B.A. The President, Mr. A. Graham Henderson, A.R.S.A. [*F*], President of the R.I.B.A., was in the Chair.

The Council adopted the 101st Annual Report, which stated that 1950 was a memorable year in the history of the Society, for in November it completed a hundred years' work for the relief of architects and their widows and orphans, and since 1850 over £130,000 had been distributed to those in need.

The Council had considered the great need that is apparent for homes for elderly people with straitened means, and a special Centenary Appeal was issued in November to raise funds for the provision of homes for beneficiaries. By the end of the year £4,372 18*s.* 2*d.* had been received. A Centenary Ball was held at the Dorchester Hotel on 12 December, and as a result £750 16*s.* 11*d.* was raised. The Allied Societies of the R.I.B.A. and other Societies associated with architecture were asked if they would try to raise £100 each towards the Fund, and many responded by sending more than this amount. Many other generous gifts had been received.

One hundred and twelve cases were helped during the year, ten more than in 1949. Twenty-four of these were architects or architects' assistants, 68 widows, and 20 orphans.

A small Christmas gift was again sent to each of the Society's pensioners and regular beneficiaries, a larger one being given to those aged 90 or over. Two places had been purchased in Hurst Grange, the residential club administered by Crossways Trust, Ltd., and an architect's widow and a retired architect had moved in.

Mr. Charles Woodward [*A*], Honorary Secretary, in presenting the Report, urged members to make the Society's work known so as to bring in more subscribers, and said how glad the Council were to have representatives of the architectural Societies and Associations from different parts of the country. They aroused interest in the Society among their members, and they also provided information on cases in their area needing help. If every architect on the register subscribed to the Society, it would really be able to give needed help.

Mr. H. S. Goodhart-Rendel [*F*], Honorary Treasurer, in presenting the accounts and balance sheet, said that there had been some falling off in the amount of regular subscriptions, and if this could not be made up by enlisting new contributors, it might be necessary to reduce the grants, which would be a disaster for the applicants.

The amounts received from the advertisements in the Red Book, and from insurance commission, were very welcome additional income, and the Council were very grateful to the advertisers, and to the policy-holders.

The Centenary Fund had already reached £7,000, which was an encouraging beginning, though much more would be needed before the homes could be built.

The Council had given £600 more in grants than had been distributed in the previous year.

The President, in moving the adoption of the Report, Statement of Accounts and Balance Sheet, said :

'The Annual Report of the Council for the year 1950, which is now before you, ends the story of the first hundred years of the Architects' Benevolent Society. From its small beginning it has grown in size and usefulness, and can, I think, be congratulated on its century of work.

'But after a very brief pause to look back on past achievements, it is right that we should look forward to our next hundred years, and use the experience gained, the better to help those who are in distress.

'We have realized that one of the most urgent needs of most of those who turn to us for help is a home where they can live simply and securely, and as independently as possible. We have therefore launched our Centenary Appeal Fund for £50,000 to provide these homes, and I am glad that such a good response has been received so far. I hope the contributions will con-

tinue to come in, in a steadily increasing flood, so that we may soon be able to make a start on the building of the homes, and bring joy to the anxious enquirers among our beneficiaries who look forward to the peace and security of a place of their own. When we have received enough to justify the purchase of a site, we hope to hold a competition for the design of the homes.

'In addition to this special fund, however, we urgently need more contributions towards our general work. Our 16 pensions could be increased in number if we could count on a larger reliable income. Our grants could be increased also, and so help those who face the rising cost of living with neither strength nor means to add to their incomes in the evening of their lives.

'We also have a special fund—The Leonard Solomon Memorial Fund—for helping the children of architects or their assistants to receive education and training. For those children who have lost a parent, we have found that a boarding school education provides discipline and training which they are not able to have at home, and gives the mother a chance to earn.

'We often have to help to tide over a difficult time due to illness, and I am glad to say we have had very cheering results in many cases, those we have helped being able to return to work, their recovery being aided by the freedom from anxiety for their families which our grants have given.

'All these ways of helping members of this profession and their families when they are in need can only be continued if we get enough support from the profession, and in asking you to approve this Report for 1950 I would like to urge you to bring it to the attention of others, so that they may know what we do and help us to continue and extend our work.'

Mr. A. Graham Henderson was re-elected President for the year 1951-52. Mr. H. S. Goodhart-Rendel [*F*] and Mr. Charles Woodward [*A*] were re-elected Honorary Treasurer and Honorary Secretary.

Practice Notes

Edited by Charles Woodward [*A*]

IN PARLIAMENT. Improvement Grants. Asked whether he was aware that the terms of paragraph 3 (iii) of the Practice Notes issued to local authorities under Circular 4/51 are giving rise to misunderstanding; and if he will make it clear that houses let to employees, as distinct from houses used for service occupancy without rent, are eligible in appropriate cases for an improvement grant under the Housing Act 1949, the Minister of Local Government and Planning replied: I do not think that any misunderstanding should arise. The hon. member's statement of the case in the last part of his question is quite correct (8 May 1951).

Taps. Asked when he expected to make an announcement on B.S. 1010 and the Ministry of Health Swan taps, the Minister of Local Government and Planning replied: I shall not in future confirm new bye-laws making B.S. 1010 taps compulsory (8 May 1951).

Building Bye-laws (Committee). Asked the names of the professional associations invited to nominate representatives to serve on the committee which is to advise him on the revision of the model building bye-laws, the Minister of Local Government and Planning replied: The answer is as follows: Association of Municipal Corporations, British Standards Institution, Federation of Associations of Specialists and Sub-Contractors, Federation of British Industries, Incorporated Association of Architects and Surveyors, Institution of Civil Engineers, Institution of Municipal Engineers, Institution of Structural Engineers, National Federation of Building Trades' Employers, National Federation of Building Trades' Operatives, Royal Institute of British Architects, Royal Institution of Chartered Surveyors, Rural District Councils Association, Royal Sanitary Institute and Urban District Councils Association (7 May 1951).

Council Houses (Sale). Asked if he would implement Section 79 of the Housing Act 1936 and give power to local authorities to sell municipal houses to sitting tenants, the Minister of Local Government and Planning replied: No (10 May 1951).

MINISTRY OF LOCAL GOVERNMENT AND PLANNING. A progress report covering eight years of town and country planning up to the end of January 1951 has been presented to Parliament by the Minister of Local Government and Planning, and is published as a White Paper (Town and Country Planning 1943-51. Cmd. 8,204, H.M.S.O., price 5*s*.).

In his preface the Minister refers to the five major Acts passed before the Ministry of Town and Country Planning was merged into the Ministry of Local Government and Planning. Those Acts are the Town and Country Planning (Interim Development) Act 1943, the Town and Country Planning Act 1944, the New Towns Act 1946, the Town and Country Planning Act 1947, and the National Parks and Access to the Countryside Act 1949.

Superannuation. The Ministry has issued Circular 35 dated 25 April 1951, being a summary of certain appeal determinations under the Local Government Superannuation Act 1937, which have been made since the summary issued with Circular 100/50 dated 28 September 1950. The new Circular is obtainable at H.M.S.O. or through any bookseller, price 2*d*.

Minimum Street Widths. Circular 19 dated 25 April 1951 refers to a Schedule of suggested Minimum Widths for carriageways and footways of new streets, which has been compiled in conjunction with the Ministry of Transport.

The Circular and Schedule are obtainable at H.M.S.O. or through any bookseller, price 2*d*. and 4*d*. respectively.

Building Licences for the Repair of War Damage. The Ministry have issued Circular L.R.L. 5/51 dated 10 May 1951 to Councils and Housing Authorities in the London Region suggesting that, with a view to lessening the difficulties which restricted monetary quotas impose and to minimize delay in the issue of licences, local authorities should, for the time being, license only such war damage repair work as is essential to provide a reasonable standard of comfort, notwithstanding the fact that the War Damage Commission may have agreed the complete cost of reinstatement. The London Region Circular Letter L.R.L. 13/48 issued on 26 June 1948 should be regarded as withdrawn.

Rating Assessments. The Incorporated Association of Rating and Valuation Officers have published a booklet dealing with the assessment of properties and the appeals procedure. It is a simple explanation of the new machinery and methods of valuation for rating introduced by the Local Government Act 1948 and is obtainable at the offices of the Association, Livingstone House, 42 Broadway, Westminster, London, S.W.1, price 6*d*.

MINISTRY OF EDUCATION. Primary and Secondary Schools, Additional Cost.—The Ministry have issued to Local Education Authorities an Administrative Memorandum No. 395 dated 1 May 1951 which points out that the gross cost of a school building consists partly of net cost and partly of additional cost. Limits of net cost per place were announced in Circulars 215 and 219, but economy in additional cost is also necessary if a given investment is to yield as many school places as possible.

The Minister is anxious to avoid the delay and inconvenience which are caused when he finds it necessary to ask for reductions in the additional cost of schemes submitted for his approval. It is desirable that estimates of additional cost submitted at the stage of compiling the annual building programme should be more accurate than in the past. In order to assist Authorities an Appendix A is attached to this Memorandum which indicates, for certain additional cost items, the order of expenditure which is considered justifiable in present circumstances. The definition of net cost and additional cost is included in the Appendix by listing the items that are to be included in the respective costs. Appendix B contains notes on certain additional cost items, with suggestions for width and cost of roads and paths and the cost of fencing. Houses for caretakers and teachers are defined as to superficial area and the cost per square foot.

(Members engaged on school buildings will no doubt obtain a copy of the Memorandum and Appendices, as space does not permit a full reference in these Notes.)

Furniture and Equipment. The Ministry has issued addendum No. 2 to Circular 191, dated 10 May 1951. The addendum deals with tenders for furniture and equipment, and states that the Minister hopes to issue

to local Education Authorities guidance on furniture and equipment (possibly including yardsticks of cost) similar in scope to that already available for buildings in the Building Bulletin series. In the meantime he proposes to modify Circular 191 to enable authorities, if they wish, to obtain his approval to furniture and equipment proposals before tenders are invited. The revised arrangements are described in detail in the addendum.

As hitherto, proposals for new capital provision of furniture and equipment costing less than £300 and for replacements need not be referred to the Ministry. The procedure for issuing timber licences will also remain unchanged.

ROYAL INSTITUTION OF CHARTERED SURVEYORS. Fees for Adjusting Variation of Price. The R.I.C.S. Council, advised by the Quantity Surveyors' Committee, has authorized the inclusion of the following new paragraph in the scale of charges for quantity surveying services:

'For adjusting variations of price under any fluctuation of price (labour and materials) clauses of the contract: 2½ per cent upon the aggregate of the amount of the increases and/or decreases.'

The new paragraph as above applies to both Section I and Section II of the scale of charges for quantity surveying services.

Memorandum on Rent Restrictions and the Repair Problem. The R.I.C.S. has published a Memorandum on 'Rent Restrictions and the Repair Problem' explaining a scheme for increasing controlled rents to cover the increase since 1939 in the costs of repairs and maintenance. An Appendix to the Memorandum contains a detailed analysis of post-war increases in house-building and maintenance costs up to March 1951.

Copies (price 2*s.* 3*d.* post free) are obtainable from the Secretary, The R.I.C.S., 12 Great George Street, S.W.1.

MINISTRY OF WORKS. Portland Cement and Asbestos Cement. The Minister has authorized an increase of 5*s.* 6*d.* per ton in the maximum selling prices of ordinary Portland and rapid-hardening cement in Great Britain and Northern Ireland. This increase applies to despatches on and after 18 April 1951, and 4*s.* per ton relates to non-returnable packages.

The Minister has also authorized an increase of 10 per cent in the maximum selling price of asbestos cement building materials manufactured by the Turners Asbestos Cement Co. Ltd. and the Tunnel Asbestos Cement Co. Ltd. This increase applies to despatches on and after 30 April 1951 (M.O.W. 45/51. P.I.73. 5 May 1951).

Gypsum Rock, Building Plasters and Plasterboard. The Minister has made Orders controlling the maximum prices of gypsum rock, building plasters and plasterboard sold by the companies in the British Plaster Board group which are scheduled in the Schedules to the Orders. The Orders have effect from 21 May 1951, and have been made owing to the withdrawal of the companies in the British Plaster Board group from the previous agreement not to raise prices without the Minister's consent. Export prices are not controlled.

The companies concerned may not charge more for gypsum rock than the prices ruling on 1 March; for plasterboard more than ½*d.* per sq. yd. above the prices ruling on 1 March; and for building plasters more than 1*s.* 6*d.* per ton above the prices ruling on 16 April.

S. 1. 1951. No. 866. The Gypsum Rock (Prices) (No. 1) Order, 1951.
S. 1. 1951. No. 865. The Building Plasters (Prices) (No. 1) Order, 1951.
S. 1. 1951. No. 864. The Plasterboard (Prices) (No. 1) Order, 1951.

Obtainable at H.M.S.O., price 2*d.* each.

LAW CASES. In the Court of Appeal on 13 April the appeal by Earl Fitzwilliam's Westworth Estates Co. v. The Minister of Town and Country Planning and the Central Land Board was dismissed by a majority.

The case concerned Section 43 of the 1947 Planning Act which enables the Central Land Board compulsorily to acquire land when authorized by the Minister, if he is satisfied that it is in the public interest. The facts of the case established that the Board made the Order to enforce compliance with their policy that land should be acquired at its existing use value and re-sold at a price inclusive of development value. For the appellants it was contended, on the facts, that the Board exercised, or purported to exercise, their power for a purpose not authorized by Section 43 of the Act. By a majority the Court dismissed the appeal, holding that the Board went no further than, under the Act, they were entitled to go. Leave to appeal to the House of Lords was granted.

The dissenting Lord Justice said that the Board had laid it down as their policy that a landowner must sell his land only at its existing use value, and that they would, if necessary, use their compulsory powers of purchase to make him do so. The Town and Country Planning Act was a revolution in itself. It took away the freedom of each man to do as he liked with his own land. It was suggested in argument that the power of compulsory purchase could be used to enable the Board to promote development. It is no part of the Board's functions to promote the development of land. That is the function of local authorities, who have knowledge of local conditions.

The real reason why Parliament gave the Board the power of compulsory purchase was to assist them in their function of collecting development charge. The question is: Did the Board exercise their powers in order to facilitate the collection of development charge? It was certainly not their major purpose. It was one of the purposes of the Board, but they certainly had another purpose in mind. They exercised their powers in order to enforce their policy of sales at existing use value only. They chose this case not so much because it assisted them to collect development charge, but much more because it was an excellent case in which to enforce their policy.

Parliament did not enact that land was to change hands only at its existing use value. Nor did it authorize anyone else to make such a law. Parliament preferred to rely on the economic theory that the development charge would, as a rule, leave the developer unable or unwilling to pay more than existing use value for the land.

The Board's policy may be an excellent one, but once the Board proclaim that they will use their compulsory powers to enforce it then it ceases to be a policy and becomes a law—a law laid down by a Government Department and not by Parliament. If a Government Department, however well-intentioned, takes upon itself the functions of Parliament and seeks to legislate without authority, it is the duty of the Court to intervene.

The Lord Justice's conclusion was that the ultimate object of the Board and the Minister was one which was not lawful, because it is not their function to legislate. If it is to be the law of this country that landowners are to sell their land at existing use value only, that law should be enacted by Parliament. (*The Estates Gazette*, 21 April 1951.)

Woolfe v. Wexler. (Court of Appeal, 21 February 1951.) This was an appeal by the Defendant against a decision of a Deputy Official Referee, giving judgment for £1,042 with interest and costs in favour of the Plaintiff (a builder) for work done and materials supplied.

The Defendant granted a lease of premises to a Mr. Lament and asked the Plaintiff to do works of alteration and reconstruction. The Defendant's architects applied for a building licence in the name of Mr. Lament and the licence was granted. The Plaintiff, having been told by the Defendant that he had a licence, carried out the work.

The Defendant contended that he was not liable to pay because the work was done illegally in that the licence, being in the name of Mr. Lament, was not in accordance with the requirements of Regulation 56A, as Mr. Lament was wrongly given as 'the person paying the cost of the proposed work.'

Giving judgment dismissing the appeal with costs, the Court said that the policy of the Regulation was to prevent work being done which was not covered by the licence. It did not require that the person paying for the work should be the recipient of the licence. The Court could hardly imagine a case more plainly outside the mischief which the Regulation was framed to prevent. The work was authorized. It was being done to meet the requirements of the person to whom the licence was granted, and the cost of the work was being paid in part by the licensee.

Leave to appeal to the House of Lords was refused. (*The Estates Gazette*, 24 February 1951.)

Review of Construction and Materials

This section gives technical and general information. The following bodies deal with specialized branches of research and will willingly answer inquiries.
The Director, The Building Research Station, Garston, near Watford, Herts. Telephone: Garston 2246.
The Officer-in-charge, The Building Research Station Scottish Laboratory, Thorntonhall, near Glasgow. Telephone: Busby 1171.
The Director, The Forest Products Research Laboratory, Princes Risborough, Bucks. Telephone: Princes Risborough 101.
The Director, The British Standards Institution, 28 Victoria Street, Westminster, S.W.1. Telephone: Abbey 3333.
The Director, The Building Centre, 9 Conduit Street, W.1. Telephone: Mayfair 8641-46.
The Director, The Scottish Building Centre, 425-7 Sauchiehall Street, Glasgow, C.2. Telephone: Douglas 0372.

The Riley-Newsum House. The supply of certain building materials changes with economic trends and it is not easy to foretell what will, or will not, be available a year or two hence. At present the use of timber is severely restricted, but if imports were to increase it might be that the value of the stock held would lead to freer use. This possibility lends interest to the Riley-Newsum house, prefabricated from Swedish and Finnish timber for the Australian Commonwealth by Messrs. H. Newsum Sons and Company Ltd., of Lincoln, who crate the components for shipment to Australia.

The house is 46 ft. 8 in. long by 21 ft. 8 in. wide and has been designed on a 3 ft. 4 in. module; the external walls are stud-framed cavity panels 8 ft. high by 3 ft. 4 in. wide, clad externally with 1 in. vertical weatherboarding, and internally with ⅜ in. plasterboard. The internal partition panels are similar but are clad both sides with plasterboard. The vertical members of the wall panels have a groove on their outside faces, in which a tongue is inserted. The roof is formed with folding wood trusses covered with aluminium. The flooring is 1 in. tongued and grooved, resting on 4 in. by 2 in. joists treated with preservative. All internal doors are flush, faced with plywood, and the plumbing unit is in copper piping cut to length, requiring only compression jointing on the site. Openings in the eaves soffits ventilate into the roof space, which has ventilating panels in the gables and glass wool quilt laid between the ceiling joists. This allows the larder to be ventilated through the floor and into the roof space. Metal flashings to the tops of the concrete stumps and all round the house are provided as a protection against ants.

The Australian practice is to form the foundations of concrete stumps in the ground; bearers of local hardwood are then placed over the stumps and the house is erected on the bearers. It is stated that the house, including foundations and all finishings, can be built in 550 man-hours.

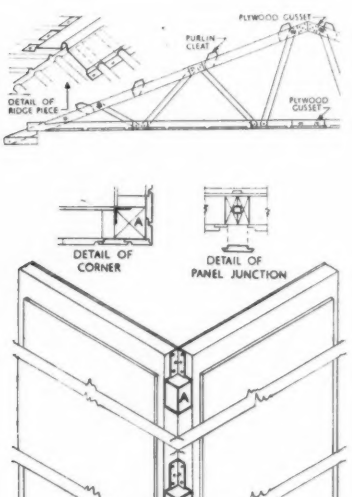
The adoption of a standard width of 3 ft. 4 in. has simplified crating, and the difficulty of dealing with the timber roof trusses has been ingeniously solved by making them in two halves, which fold up and fit into the crates; on arrival at the site it is only necessary to open them out and insert seven bolts.

The Riley-Newsum house. Front view.

Mr. James Riley joined Messrs. Newsum in October 1949, and the house was designed by Mr. A. B. Armstrong [*A*] of Australia. 900 houses are to be shipped to Australia at the rate of over 80 houses a month. It is understood that the Scottish authorities have shown interest in the house.

Coltrate 1436. Cold air infiltration through small cracks can upset a heating calculation and as they may be aggravated by vibration they can not very well be sealed with a rigid infilling. Messrs. Coltrate, Ltd., of 19a Coleman Street, London, E.C.2, have produced a new Coltrate plastic 1436, which can be applied cold, and for which it is claimed that it will not peel or crack, that it is acid-resistant and waterproof; will not flow, and will adhere to any surface. Its plastic nature should allow it to accommodate itself to small movements of the supporting surface.

Warming by gas. The Gas Council (1 Grosvenor Place, London, S.W.1) have issued an illustrated booklet, *Gas and the warming of large buildings. Part* 1. *Central plant*. The advantages of gas are well known, among them being its cleanliness and the flexibility it allows in siting the heating unit. The booklet naturally mentions these advantages, but it also includes succinct notes on systems of heating, and a glossary of terms with which architects should be conversant if they are to understand the sometimes rather technical language of heating and ventilating engineers.



The Riley-Newsum house. Top, the folding roof truss
Bottom, corner assembly

The Riley-Newsum house plan

Correspondence

LIGHTING OF PICTURE GALLERIES

Sir,—With reference to the lighting of picture galleries, in the interesting paper by W. A. Allen and R. G. Hopkinson in the May issue of the JOURNAL, I note that the question of reflection from the picture of objects within the gallery seems to be ignored. In so many galleries it is essential to place glass over the pictures. Very disturbing reflections occur from opposite wall, from ceiling, from the velarium itself, and from the observer and the floor. The paper deals with a specific aspect of the problem but this factor of direct reflection, although a separate question with a separate set of governing principles, must surely influence the all-in-all efficacy of anti-glare precautions. I have seen a vertical partition of low reflectancy down the middle of a gallery which cuts out images from the opposite wall appearing in the plane of the observed picture. Sometimes pictures are placed with a distinct angle to throw reflections downwards to the floor where they will be lost and not be reflected back to the eye. It seems reasonable to suggest that this question should receive attention along with that of light diffusion. The paper touches upon the eye and even the mind of the observer, but it does not suggest that attention is being given to the observer himself and his position relative to the picture plane. It is possible that consideration of the one problem might influence consideration of the other.—Yours faithfully,

ERIC FRENCH (*Student*)

SCOTTISH CEILING HEIGHTS

Sir,—While reading the article on the 'Review of the Low-cost Housing Competition' appearing in the March issue of your JOURNAL, I noticed a reference to Scottish ceiling heights which may mislead some readers. The sentence in question reads: 'It is worth remembering, however, that the Scots still adhere rigidly to a 9 ft. lower storey and an 8 ft. upper storey, regarding anything less as a serious lowering of standards.'

The writer of the article may have had in mind the terms of the Burgh Police (Scotland) Act, 1892, which fixed ceiling heights for burghs at a minimum of 9 ft. 6 in. for ground floor habitable rooms and of 9 ft. for all other habitable rooms, except attic rooms. Some local acts and bye-laws insist on similar heights. But since 1919 housing authorities who wished to adopt lower heights have been able to do so by obtaining the Department's approval of their plans and specifications. In practice, most traditional local authority houses built since the war have adopted a height of 8 ft. 6 in. on ground floors, and 8 ft. elsewhere. Since December 1949 the Department have encouraged the adoption of a uniform 8 ft. This is the ceiling height in most of the non-traditional houses built in Scotland.

Privately-built houses are permitted by the Housing (Scotland) Acts to incorporate any ceiling height which is below the minimum required by bye-laws, etc., but which the local authority themselves have adopted with the Department's approval.

I hope this makes the matter clear.—Yours faithfully,

R. GARDNER-MEDWIN [*A*],
(*Chief Architect and Planning Officer, Department of Health for Scotland*).

Book Reviews

Ely Cathedral. Introd. [text] by *Geoffrey Webb*. (Cathedral Books *series*, No. 3. Paul Wengraf & others, gen. eds.) 9¾ ins. 17 pp. + 15 pls. + folding plan + end-paper. Lund Humphries. 1950 [1951]. 3*s*. 6*d*.

There have been three series of illustrated quarto works on English cathedrals launched during the last three years: 'Cathedral Books' series, published by Lund Humphries; the 'English Cathedrals' series, each volume-title beginning *Portrait of . . .*, by Phoenix House; and those entitled *The Glories of . . .*, issued by Winchester Publications. This new volume, published this year despite its imprint date, belongs to the first of these. There is nothing specially noteworthy to be said of it, save that it includes the half-tone photographs, scholarly historical text and BUILDER plan (1892) of its predecessors. The one thing lacking in this as in most works of the kind is a plan showing the remains of monastic or collegiate buildings and the present-day surroundings, which would make them so useful, thorough, realistic and satisfying; as it is they are treated as isolated deposits unrelated to subsequent topography and history.

H. V. M. R.

The Lands Tribunal: Jurisdiction, Law, Procedure, by *M. Dunbar van Oss* and *Niall Macdermot*. With practical examples by *Ronald Collier*. 8½ in. (ii) + xl + 412 + 39 pp. *with* Suppt. viii + 34 pp. Butterworth. 1950. £1 17*s*. 6*d*. the 2.

Those members whose practice includes valuation of property will find this book very useful as a guide to the many problems arising out of matters referable to the Lands Tribunal under the 1949 Act. The Tribunal's jurisdiction includes that formerly exercised by the Official Arbitrators and the Estate Duty Referees. Claims against the £300 Million Fund together with certain rating appeals formerly dealt with by Quarter Sessions will also be heard by the Tribunal. This, however, is qualified by section 1 (4) of the 1949 Act, and the authors of this book explain that any of the classes of jurisdiction conferred on the Tribunal by section 1 (4) which were formerly either exclusive or alternative will remain so.

Appendix 'B' contains those sections of Acts of Parliament relating to valuation, commencing from the Lands Clauses Consolidation Act, 1845, and concluding with the Civil Aviation Act, 1949, thus comprising in one volume all relevant statutory provisions. This is a valuable feature of the book, and will make it a ready source of reference, containing as it does extracts from 15 Acts of Parliament.

Appendix 'C' contains the Statutory Instruments relating to valuation, and examples of valuation are given in Appendix 'A' with a valuer's proof of evidence in Appendix 'D'.

It is stated that legislation regarding compulsory purchase and compensation dates from the 16th century. Since that date Parliament has dealt with the subject, but whether successfully or not is a matter of individual opinion. The authors of this book, however, have set out in clear language the law as it stands today and in a form which the lay mind can understand. Their efforts should be appreciated by those practitioners engaged on problems of compulsory purchase and compensation.

A supplement to the main work has also been published, the author being Niall Macdermot, barrister-at-law, part author of the main work. This contains recent decisions of the High Court and additional Statutes and Orders, but it should be noted that the Court of Appeal have reversed the decision in East End Dwellings Co. Ltd., *v.* Finsbury Borough Council.

CHARLES WOODWARD [*A*]

An Outline of European Architecture, by *Nikolaus Pevsner*. (Pelican books, A 109.) [3rd] ed. 7¼ in. 301 pp. + 64 pls. text illus. Harmondsworth: Penguin Books. 1951. 3*s*.

The third Penguin edition of this short history of western architecture needs no introduction. It incorporates a number of additions to the text of the first (1943) and second (1945) editions and twice the original number of plates, of which there are now sixty-four. In its latest form it is in fact almost identical with the library edition of the same book brought out by Messrs. John Murray in 1948. A bibliography of remarkable excellence is included, and, apart from the plates, many plans and line drawings are reproduced in the text. At 3*s*. it represents almost incredible value for money by the standards of today.

The Design of Prismatic Structures, by *A. J. Ashdown*. (Concrete series.) 9½ in. vi+65 pp. text illus. Concrete Pubns. 1951. 8*s*.

This book describes with worked examples a new method of designing sloping reinforced concrete slabs. It is claimed that this type of construction has advantages over the now popular curved shell roofs.

J. C. P.

Obituaries

James Glenn Sivewright Gibson [*Retd. F*], died on 27 March, aged 90.

Mr. Gibson, after training with Messrs. Ireland and Maclaren in Dundee, came to London, where he practised throughout his long working life ; first in Gray's Inn Square, then in Old Bond Street, and finally in Devonshire Terrace, Marylebone. In 1890 he entered into partnership with S. B. Russell, and in 1909 with W. S. A. Gordon. His principal architectural works consisted of (alone) Walsall Town Hall and Free Library; (with Mr. Russell) County Hall, Wakefield, and the Technical Institute and Library, West Ham; (with Mr. W. S. A. Gordon) Middlesex Guildhall, Westminster; St. James's Hospital, Wandsworth; Victoria Hospital, Blackpool; a building for the Scottish Equitable Insurance Society, Cornhill; Caxton House, Westminster; shop premises for Debenhams, Ltd., in Wigmore Street, for Arding and Hobbs, Ltd., at Clapham Junction, and Parnells, Ltd., at Victoria; and the Portsmouth War Memorial.

Mr. Gibson was a Vice-President of the R.I.B.A. from 1906 to 1910, and served for many years on the Council and the following committees: Art, Science, Competitions, Prizes and Studentships, Bye-laws Revision, Constitutional Unification, Franco-British Union, the Board of Professional Defence, and the Housing Consultative Board for the London Area.

Dr. H. V. Lanchester [*F*] writes:

'James Glenn Sivewright Gibson [*A*] 1890, [*F*] 1902, *Ret.* 1949, whose death on 27 March last we regretfully record, was for many years a very active member of the R.I.B.A. both on the Council (as a Vice-President from 1906 to 1910) and on many committees.

'One of Gibson's earlier activities was in association with a group of Associate Members pressing for a better representation of Associates on the Council. It must be said that while firm and emphatic in the expression of his opinions he was invariably genial and courteous in his contacts with those who sometimes differed from the views and proposals he advocated. It was a pleasure to argue with him and it was impossible to be other than appreciative of his early successes.

'Mr. Gibson, after training with Messrs. Ireland and Maclaren in Dundee, came to London early in the 1880's and was for a time in the office of Mr. T. E. Collcutt whose work somewhat influenced his earlier designs. He began private practice in 1889 and shortly afterwards entered into partnership with Mr. S. B. Russell to undertake an attack on open competitions which proved well justified. In 1891 their design for an L.C.C. Hostel for men was selected, in 1892 they won the West Riding County offices at Wakefield, and in 1895 the West Ham Technical College, while in the following year they were placed second in the North Bridge scheme, Edinburgh, and in 1898 second in the Cardiff City Hall and Law Courts competitions. In 1900 the partnership with Mr. Russell had been terminated and Mr. Gibson then won the competition for Walsall Town Hall, which was carried out together with the Free Library some time afterwards; Caxton House, Westminster, followed a little later.

'In 1909 he was joined by Mr. W. S. A. Gordon and Mr. F. P. Skipworth (who was killed in the war in 1915) and carried out the Middlesex Guildhall, Westminster, 1911-1916; other works included St. James's Hospital, Wandsworth, Victoria Hospital, Blackpool, the Scottish Equitable Insurance Building, Cornhill, and large shop premises for Debenhams, Ltd., in Wigmore Street, for Arding and Hobbs, Ltd., at Clapham Junction, and Parnells, Ltd., at Victoria. Many other smaller works, including the Portsmouth War Memorial, can be added to this list. Mr. Gibson was a master planner and largely owed his success in competitions to this faculty; his treatment of external design developed from a somewhat too florid treatment rather in vogue during the late 19th century towards a simpler and more logical one with traditional classic detail. The Gothic variations adopted at Middlesex Guildhall were obviously suggested by its proximity to Westminster Abbey and the Houses of Parliament.

'As a personality, as previously suggested, Mr. Gibson had a gift of social charm and absence of affectation that retained the good will and kindly feeling of those who were in touch with him throughout his long career.'

Mr. E. A. R. Rahbula [*A*], a former pupil, sends the following appreciation:

'By the death of James Sivewright Gibson one of the few links yet remaining which connect the present with the past generation of architects has been severed and the Institute has lost a past Fellow who, in his time, served it well as a member of the Council and as a Vice-president.

'When I joined his staff as a pupil some 47 years ago Gibson, who as a young man had come south from Dundee, was already established in one of the most promising practices in London, a practice he had himself built without any influence, by sheer ability and force of character. Before setting up on his own in about 1889 he had, I believe, served in the office of T. E. Collcutt.

'A clever planner, he had won, either by himself or in partnership, more than one open competition and already had to his credit many large buildings. He was then at work on Walsall Town Hall, to be followed by Walsall Public Library, Caxton House, Westminster, several blocks of City offices, besides a Wesleyan church, an infirmary and some domestic buildings.

'It is not my intention to enumerate—even if I had the information to hand—a list of all the many buildings for which he was responsible, but only to indicate the variety of his practice. To illustrate the versatility of his design, however, mention must be made of two of his best known but very different London works, Messrs. Debenham and Freebody's shop in Wigmore Street, and the Westminster Guildhall. They may have their critics but must be acknowledged the creation of a virile mind of no mean æsthetic order.

'He took an active interest in the affairs of the Institute and was a pioneer in the cause of Registration, a policy then looked upon with little favour by official opinion.

'Perhaps remembering his own early experiences when a newcomer to London, he always welcomed the young Scottish assistant seeking work in the metropolis and his office in 5 Old Bond Street was their acknowledged Mecca. If there was no vacancy for followers there, by letter of introduction or by other means, accommodation was always found for the seeker.

'Experience in his office was keenly sought but, a hard and methodical worker himself, he expected the same from his staff. No drawing left his office that had not passed his close scrutiny, and little pity was shown the unfortunate draughtsman who tried to send out an inaccurate or unworkable drawing.

'He enjoyed life to the full and spent freely. He was generous to a degree and many were his unknown acts of kindness; few in want appealed to him in vain. We are too close to his work to be able to judge it objectively, but when the cycle comes round and Edwardian art is evaluated at its correct worth, the work of James S. Gibson will be acknowledged to have a not unworthy place.'

Sir Ian MacAlister [*Hon. A*] sends the following tribute :

'The news of the death of J. S. Gibson at the age of 90 brings back many vivid memories of the days when he was in the prime of life and a great figure at the R.I.B.A. He was not only a very able architect and one of the most distinguished planners of his time, but he was—what few can now remember—one of the real pioneers of the Registration movement. He was the most forceful and clear-headed of the members of the Council of 40 years ago when the first practical steps were being taken in the long campaign which culminated in the Acts of 1931 and 1938. His persuasive and masterful speech at a General Meeting in 1911 was the utterance of a real statesman. Only an accident kept him from the Presidential Chair of the R.I.B.A.'

Harold Selwood Sawyer, M.C., A.M.T.P.I., [*F*], President of the Hampshire and Isle of Wight Architectural Association and a member of the Council of the R.I.B.A., passed away on 22 March, at the age of 68.

Mr. A. L. Roberts [*F*] writes :

'Harold Sawyer possessed a character which was specially lovable. He was a cheery person with a keen sense of humour. He was also meticulously conscientious in all he undertook, and his thoughts and spoken words were always chosen from kindness of heart.

'He was never self-seeking of praise or distinction; his pleasures—apart from the love of his family and his profession—came from rendering voluntary services to others. Locally, he played a great part in helping to preserve works of architectural merit as well as in helping to control development to prevent disfigurement of the City of Winchester and the villages throughout Hampshire. Almost every street in Winchester, and many in neighbouring towns and villages, bears some trace of his work or influence.

'Born in 1883, he lost his father when he was an infant and with his mother moved to Winchester where his elder brother, John Ashton Sawyer, F.R.I.C.S., was in practice. After leaving school in 1900 he was first articled to his brother and afterwards to Messrs. Colson, Farrow and Nisbett [*F*/*F*/*A*]. While with the latter firm he studied at the Winchester School of Art, and in 1903 he won a National Bronze Medal for Measured Drawings. These drawings were afterwards selected to represent British Students' Work at the St. Louis Exhibition in the U.S.A.

'From 1905 to 1915 he was an Architectural Assistant, first with the Hampshire County Council and then with the Kent County Council, and it was in the former appointment that I first became acquainted with him in my capacity as Chief Architectural Assistant. From personal experience I can speak of his unhesitating loyalty and sense of duty to all with whom he came in contact, as well as of his ability and thoroughness in all his work.

'In 1909 he was elected an Associate of the R.I.B.A. He was also a Member of the Architectural Association. From 1915 to 1919 he served as a territorial in the South Lancashire Regiment and distinguished himself. He was twice wounded, mentioned in despatches, received a Divisional Commander's certificate

of gallantry, and was awarded a Military Cross (at Cambrai).

'In 1920 he was elected an Associate Member of the Town Planning Institute. After being demobilized he joined the Housing Division of the Ministry of Health and became Regional Architect to ten midland counties, with headquarters at Nottingham. On the termination of this Civil Service appointment in 1924 he returned to Winchester and, after a short time in practice on his own account, entered into partnership with Mr. B. D. Cancellor [*F*]. He was appointed Surveyor to St. John's Hospital and Allied Charities, Winchester, in 1925, and also Diocesan Surveyor for the north of the County. In the latter appointment he was transferred to the south of the County in 1939, upon the retirement of Mr. Cancellor. He was further appointed Surveyor to the Murray Trust and Riflemen's Aid Society. A year later Mr. Cancellor died, and Harold Sawyer, the junior partner, was left to continue the practice alone.

'In the lean years between the wars Harold Sawyer became a Special Constable for which service he received a Long Service Medal. In 1940, at the age of 56, he joined the Royal Hampshire Regiment and served with the 8th and then the 13th Battalion until May 1942. On leaving the Royal Hampshire Regiment he joined the 5th Hampshire Home Guard and he served with them until December 1944.

'In his younger days he was a keen sportsman and throughout his life he retained his interest in sport. As a young man he played football for Winchester City and Ealing and hockey for Winchester Hockey Club. He was also a keen cricketer, tennis player and swimmer. Later he was a Vice-President of the Winchester City Football Club and also of the Winchester Rugby Club. He took an active part in the village life at Easton, where he lived, was the Rector's warden at the Parish Church, and a Parish Councillor. He was a Past President of the Winchester Chamber of Commerce and President of the Winchester Rotary Club at the time of his death. As a Freemason he was a member of Economy Lodge, Winchester, and a Past Master of "T" Square Lodge 3269. He was also a member of Oakley Lodge, Basingstoke, and a Shepherd.

'Although I know that Harold Sawyer did not consider he had been responsible for any great works of architecture he actually left behind him many examples of good work in Winchester and its surrounding district, for which those who have a keen regard for the ancient city of Winchester and its treasures will be ever grateful to him. The restoration of the Tudor front of the Eclipse Inn, in the Square ; the Ancient City Mill—now a Youth Hostel; the Magdalen Almshouses in the Weirs; and an almshouse at Hursley built with local materials from the estate are notable examples. Other works which should be mentioned are The Nightingale Nurses' Home; the children's block and a maternity unit at the Royal Hampshire County Hospital; Stanmore School; the assembly hall, gymnasium and boarding house block at King Alfred's College; Crosfield Hall, Romsey; alterations at the back of the Cadena Café, Winchester; the complete redesigning of Lockerley Hall; agricultural cottages for the Portsmouth Estates Co., Ltd.; housing schemes at Dummer and King's Somborne; a petrol filling station at the Wheatsheaf Inn, Popham; numerous restorations of churches, and church works throughout the county; and the designing of the lay-out of the Stanmore Housing Estate at Winchester covering 91 acres and comprising 532 houses of various types and sizes. For the last named he and the late Arthur E. T. Mort [*F*] were appointed joint architects. It is sad that neither of them should know that their joint efforts are to be posthumously rewarded this year by the award of a Ministry of Local Government and Planning Housing Medal for the best urban district housing scheme in Area No. 6.

'The affection and esteem in which Harold Sawyer was held, not only in Winchester and Easton, but throughout the county, were made manifest by the attendance at the memorial service held in the large church of St. Cross, on Thursday, 29 March. The officiating clergy were the Bishop of Winchester, Dr. Mervyn Haigh, who pronounced the blessing; The Master of St. Cross, the chaplain of St. John's Hospital, and the Rector of Cliddesden, Basingstoke. The city was represented by the Mayor and Mayoress, numerous aldermen and councillors, the town clerk and the city surveyor. Among the architects, the President of the R.I.B.A. was represented and more than one representative came from every Chapter of the Hampshire and Isle of Wight Architectural Association, as well as three Past Presidents of the association. Representatives from many other organisations who attended to pay their tribute were: the Church generally throughout the County; the law; the British Legion; the Royal Hampshire Regiment; the 4th Battalion, the Royal Hampshire Regiment; the K.R.R.C. and Rifle Brigade; the 295 H.A.A. Hampshire Yeomanry; the Ecclesiastical Surveyors' Association; the Winchester Diocesan Education Committee; St. John's Trustees, Winchester; St. Swithun's School; the Pilgrims' School, Winchester; the Diocesan Registrar; Diocesan Dilapidations Board; King Alfred Training College; Winchester Chamber of Commerce; Masonic Lodges; Rotary Clubs; the National Union of Teachers; and the Winchester Group Hospital Management Committee.

'And now, both professionally and socially, thoughts of him are a happy memory of the past and an inspiration for the future.'

Mr. Sawyer's two sons, Mr. Peter R. Sawyer, M.C., T.D., J.P., and Mr. Richard J. R. Sawyer, T.D., A.R.I.C.S., will carry on the practice.

W. P. Steel. The death of Mr. W. P. Steel, Assistant Librarian at the R.I.B.A. from 1918 to 1939, was announced in the April JOURNAL. Mr. Steel died on the 5th of that month, aged 73. Former colleagues in the R.I.B.A. Library have written the following tributes to him.

Mr. E. J. Carter [*A*], Librarian to the Institute from November 1930 to 30 April 1946, and now in charge of the Libraries and Documentation Services of U.N.E.S.C.O., writes from Paris :

'News of Mr. Steel's death has only just reached me on my return from a journey of several weeks in Turkey and Persia, otherwise I would have written sooner to express my respect and affection for a colleague with whom I worked in the peculiar intimacy of the R.I.B.A. library for 10 years. Steel was much more than just someone who worked in the library: in the good old tradition of learned society librarianship, he had become a part of the Institute, so that those of us who, as readers or staff, knew him well, could never easily imagine the library without him, and when he left at the start of the war it was difficult not to continue to see his presence in the library, presiding with somewhat lugubrious dignity, and not complete approval, over the very much changed scene of the war-time reading room. Among our pleasantest interludes in those days were Steel's occasional visits to collect and dispense anecdotes and to answer the questions about R.I.B.A. history or old books which we had collected in the period since his last visit.

'Steel was a finely conscientious and loyal servant of the Institute in a tradition of librarianship which now of necessity is disappearing as the need for more elaborate, more "scientifically" organized services increases. He had a wide personal knowledge of the books in the library, a real affection for the literature of architecture and the history of its institutions, and his knowledge and affection extended to the library's readers, of whom he had a good fund of pleasantly unimportant gossip.

'Steel could be frighteningly austere, as readers found quickly if they offended his high code of how to behave in the R.I.B.A. library, but he had a single-minded love for that library and, in his personal dealings, warmth, gentleness and good humour were quickly found by those whose business or recreations in the library brought them at all closely in touch with him.'

Two present members of the R.I.B.A. library staff write :

'It is sad to hear of the death of an old colleague, William P. Steel, as he seemed the picture of unwonted health last time we saw him. Assistant Librarian from 1920 to 1939, when he voluntarily retired, his tall, slightly stooping figure, aquiline features, industrious researches and whimsical and sometimes embarrassing humour, were known to successions of members and Students. He appears to have enjoyed a very active retirement in work for his church at New Eltham and other causes. His kindly nature will long be remembered.' R.H.W. and H.V.M.R.

Thomas Harry Gibbs [*F*] died on 1 March, aged 73. Mr. Gibbs trained with Mr. G. H. F. Pryne [*F*], joined the firm of George Baines and Son in 1902 and became its owner in 1937. During Mr. Gibbs' period with the firm it was responsible for designing and building more than 180 free churches and a large number of departmental stores in London and the provinces. Mr. Gibbs was also architect to the British Sailors' Society, and built for them a number of seamen's hostels, clubs, etc. He was the author of a number of articles on Gothic churches in various periodicals.

Mr. Gibbs' practice is being carried on by Mr. V. J. Syborn, of 186A Ashley Gardens, Westminster, S.W.1.

A.B.S. Centenary Appeal

Donations up to 25 May 1951 total £7,356 16*s.* 10*d.* A further list of those who have subscribed is given below:

London Builders' Conference, £25; Burgess, Holden and Watson, £2 2*s.*; Graeme J. C. Highet, £2 2*s.*; Edward Maufe, £100; Berks Society of Architects, £4 2*s.*; Preston, Blackburn and District Society of Architects, £26 5*s.*; D. H. Marriott, £1 1*s.*; Colchester Chapter, Essex, Cambridge and Herts Society of Architects, £16 14*s.*; Guildford District Chapter, South Eastern Society of Architects, £10; R. O. Foster, £8 8*s.*; J. Beardshaw and Partners, £2 2*s.*; York and East Yorks Architectural Society, £15; Truro Branch, Devon and Cornwall Architectural Society, £5 5*s.*; Norman H. Oatley and Staff, £3 7*s.*; Eastern Branch, South Wales Institute of Architects, £35; Chartered Architects' Lodge, £5 5*s.*; John McBain, £5 5*s.*; Anon., 4*s.*; Tees-side Branch, Northern Architectural Association, £15; N. R. Paxton, £1 1*s.*

Notes and Notices

NOTICES

Election Void:
Under the provisions of Bye-law 17, the election as Associate of the following has been declared void:—

Mr. Jack Platt.

Exhibition at the R.I.B.A.
An Exhibition, 'A Hundred Years of British Architecture', will be held from 12 July to 4 September 1951, and will be open to the public free of charge: Mondays to Fridays, between the hours of 10 a.m. and 7 p.m.; Saturdays, 10 a.m. to 5 p.m.

Associates and the Fellowship
Associates who are eligible and desirous of transferring to the Fellowship are reminded that if they wish to take advantage of the next available election they should send the necessary nomination forms to the Secretary, R.I.B.A. as soon as possible.

Notes from the Minutes of the Council

MEETING HELD 1 MAY 1951

Appointments

R.I.B.A. Representative on Building and Civil Engineering Regional Joint Production Committee for Region No. 10—North Western: Mr. E. S. Benson [*F*] in place of Mr. J. S. Beaumont [*F*].

Northern Ireland: Ministry of Health and Local Government Bronze Medal Award for Housing Schemes: R.I.B.A. Representative to serve on Jury to consider Awards: Mr. A. G. Jury [*F*].

Council of National Playing Fields Association: R.I.B.A. Representative: Mr. W. H. Ansell, Past-President, re-appointed.

Building Apprenticeship and Training Council: R.I.B.A. Representative: Mr. A. H. Moberly [*F*], re-appointed.

The Duke of Wellington, K.G., F.S.A., (*Retd. F*]: The cordial congratulations of the Council were conveyed to the Duke of Wellington upon the conferment by His Majesty of the Order of the Garter.

The American Institute of Architects: Honorary Corresponding Membership: The Secretary reported that the American Institute of Architects had elected as Honorary Corresponding Members Mr. A. Graham Henderson, A.R.S.A., President, and Mr. Michael T. Waterhouse, M.C., Past-President.

The congratulations of the Council on the receipt of this distinction were conveyed to the President and Mr. Waterhouse.

Membership of Council: The President welcomed Mr. R. A. Thomas [*F*] on his election as President of the Hampshire and Isle of Wight Architectural Association and as representative on the R.I.B.A. Council in succession to the late Mr. Harold Sawyer [*F*].

R.I.B.A. Architecture Bronze Medal: The Royal Society of Ulster Architects: Confirmation was given to the Council's approval of the recommendation of the Jury appointed by the Royal Society of Ulster Architects that the R.I.B.A. Architecture Bronze Medal for the period 1938-1950 be made in favour of the Sir William Whitla Hall, the Queen's University of Belfast, designed by Mr. John MacGeagh [*A*] in consultation with Mr. Edward Maufe, R.A. [*F*].

Reception for Architects and Students from the British Commonwealth and the U.S.A.: It was agreed that in view of the success of the informal reception held in 1950 another informal reception should be held from 6 p.m. to 8 p.m. on Tuesday, 9 October 1951, at the R.I.B.A., for architects and students of the British Commonwealth and U.S.A. visiting England.

Exhibition of Contemporary Italian Architecture: The Council approved a recommendation of the Public Relations Committee that an exhibition of contemporary Italian architecture sponsored by the Italian Institute should be shown at the R.I.B.A. early in 1952.

Qualifications of Planners: Report of the Schuster Committee: The Council approved a memorandum on the report of the Schuster Committee prepared by the Town and Country Planning and Housing Committee for submission to the Minister of Local Government and Planning.

Membership: The following members were elected: As Fellows, 19; As Associates, 220; As Licentiates, 7.

Students: 84 Probationers were elected as Students.

Applications for Election: Applications for election were approved as follows: *Election 19 June* 1951: As Fellows, 9; as Associates, 127; as Licentiates, 11. *Election 9 October* 1951 (*Overseas Candidates*): As Fellows, 4; as Associates, 30.

Resignations: The following resignations were accepted with regret: Robert Howden [*F*], William Ford Slater [*F*], Eric William Parker [*A*], Alfred George Salisbury [*L*].

Applications for Transfer to Retired Members' Class under Bye-law 15: The following applications were approved: As Retired Fellow, Arthur Fred Collins Bentley; as Retired Associate, Norman Wigzell; as Retired Licentiate, George Edwards.

Obituary: The Secretary reported with regret the death of the following members: William Liddle Duncan [*F*]. Mr. Duncan was a past President of the Aberdeen Society of Architects, and had represented that body on the Council and the Allied Societies' Conference. Arnold Fielder Hooper, O.B.E., T.D., [*F*]. Mr. Hooper was a past member of the Science Standing Committee, the A.S.B. Standard Specifications Committee, and the A.S.B. Co-ordinating Committee. He had also represented the Royal Institute on various technical Committees of the British Standards Institution. Ernest James Thomas [*F*], Joseph Boyle [*A*], Gilbert Preston Scott [*A*], Arthur de Beaucamp Breton [*L*], Leonard Loveday [*L*], James Henry Lang [*Retd. L*], Cyril Francis McLaren Keay [*Student*].

By resolution of the Council the sympathy and condolences of the Royal Institute have been conveyed to their relatives.

The Reception of New Members at General Meetings
The procedure for the introduction and reception of new members at General Meetings is now as follows. New members will be asked to notify the Secretary R.I.B.A. beforehand of the date of the General Meeting at which they desire to be introduced and a printed postcard will be sent to each newly-elected member for this purpose. On arrival at the R.I.B.A. new members must notify the office of their presence and will then take their places in the seats specially numbered and reserved for their use. On being asked to present themselves for formal admission, the new members will file out in turn into the left-hand aisle and after shaking hands with the Chairman will return to their seats by way of the centre aisle.

It will not now be necessary for new members to be accompanied by supporters.

Formal admission will take place at all the Ordinary General Meetings with the exception of those on the following dates:

6 November 1951. Inaugural General Meeting.
5 February 1952. Presentation of Medals and Prizes.
1 April 1952. Presentation of Royal Gold Medal.

The Use of Titles by Members of the Royal Institute
In view of the passing of the Architects' Registration Act 1938, members whose names are on the Statutory Register are advised to make use simply of the title 'Chartered Architect' after the R.I.B.A. affix. The description 'Registered Architect' is no longer necessary.

BOARD OF ARCHITECTURAL EDUCATION

Tite Prize Competition
In the United Kingdom 187 competitors took part in the Tite Prize *en loge* Competition. The following competitors have been selected to proceed with the final drawings for the competition:

Mr. Alan Adamson (King's College, Newcastle-on-Tyne), Mr. Christopher J. Archer (Oxford School of Architecture), Mr. Joseph A. Avery (King's College, Newcastle-on-Tyne), Mr. Arthur G. Batt (L.C.C. School of Building, Brixton), Mr. Robert M. Garrett (Southern College of Art, Portsmouth), Mr. Kenneth L. S. Glen (Leeds School of Architecture), Mr. Denys M. McDonnell (School of Architecture, University of Cambridge), Mr. George G. McLeod (Edinburgh College of Art), Mr. Philip H. Meecham (School of Architecture, University of Manchester), Mr. Timothy J. Rendle (Brighton College of Art), Mr. Edward Sheehan (Edinburgh College of Art).

The Soane Medallion Competition
In the United Kingdom 103 competitors took part in the Soane Medallion *en loge* competition. The following competitors have been selected to proceed with the final drawings for the competition:

Mr. Alan E. Brignall (Canterbury College of Art), Mr. John A. Clow (King's College, Newcastle-on-Tyne), Mr. Sidney D. Dray (Canterbury College of Art), Mr. Trevor B. Holt (Canterbury College of Art), Mr. Harry V. Kirk (King's College, Newcastle-on-Tyne), Mr. Robert J. Lansdown (Welsh School of Architecture), Mr. Kenneth W. Paterson (School of Architecture, University of Liverpool), Mr. Douglass Wise (King's College, Newcastle-on-Tyne), Mr. Leslie A. Wright (Nottingham College of Art).

Examination for the R.I.B.A. Diploma in Town Planning
At the Examination held in 1950-51 the following candidate was successful and has been awarded the R.I.B.A. Diploma in Town Planning:

Harry Anthony Wheeler [*A*].

COMPETITIONS

Competition for Houses, Maldon Hall Estate, for the Maldon Borough Council, Essex

Members and Students of the Royal Institute of British Architects and of its Allied Societies must not take part in the above competition because the conditions are not in accordance with the published Regulations of the Royal Institute for Architectural Competitions.

Technical College, Poole

The Dorset County Council invite architects to submit designs in competition for a College of Further Education at Poole, Dorset.

Assessors: Mr. Julian Leathart [*F*] (nominated by the R.I.B.A.), Mr. S. A. W. Johnson-Marshall, B.Arch. [*A*] (Chief Architect, Ministry of Education), Mr. H. E. Matthews, [*F*] (County Architect, Dorset), Mr. J. Haynes, M.A. (County Education Officer, Dorset), Mr. H. J. Shelley, O.B.E. (Chief Inspector, Ministry of Education).

Premiums: £1,000, £500, £300.

Last day for submitting designs: 1 October 1951.

Conditions may be obtained on application to the County Education Officer, County Hall, Dorchester, Dorset.

Deposit £1 1*s*. made payable to the County Treasurer.

New Technical College, South Shields

The South Shields County Borough invite architects of British nationality to submit designs in open competition for the proposed Marine and Technical College buildings to be erected at South Shields.

Assessor: Mr. S. W. Milburn, M.B.E., M.C., T.D. [*F*].

Premiums: £500, £250, £100.

Last day for submitting designs: 21 July 1951.

Conditions may be obtained on application to Mr. Harold Ayrey, Town Clerk, Town Hall, South Shields.

Deposit £2 2*s*.

ALLIED SOCIETIES

Changes of Officers

Norfolk and Norwich Association of Architects. President (as from 1 July 1951), Mr. C. H. Thurston, F.R.I.C.S. [*L*]. Vice-Presidents: City, Mr. R. O. Bond [*F*]; County, Mr. A. W. Ecclestone [*L*].

Northants, Beds and Hunts Architectural Association: Bedfordshire Branch. Chairman, Mr. F. C. Levitt [*L*].

Wessex Society of Architects. President (as from 1 July), Lieut.-Col. Eric Cole [*F*].

York and East Yorkshire Architectural Society. President, Mr. Colin Rowntree [*F*].

South-Eastern Society of Architects: Tunbridge Wells District Chapter. Chairman (as from 1 July), Mr. G. E. Burgess [*F*].

Berkshire Society of Architects. Chairman (as from 1 July), Mr. John Greaves, O.B.E. [*F*].

Oxfordshire Society of Architects. Chairman (as from 1 July), Mr. Arthur Hunt [*A*]. Vice-Chairman, Mr. J. R. Tolson [*A*].

Buckinghamshire Society of Architects. Chairman (as from 1 July), Mr. H. D. Hall [*A*]. Vice-Chairman, Mr. A. B. Waters, M.B.E., G.M. [*F*].

South Wales Institute of Architects. President (as from 1 July), Mr. John W. Bishop [*A*]. Vice-Presidents, Mr. T. Edwin Smith [*F*] and Mr. L. R. Gower [*F*]. *Central Branch:* Chairman, Mr. Hugh Owen Williams [*A*]. *Western Branch:* Chairman, Mr. C. A. Hughes [*L*].

Cape Provincial Institute of Architects. President, Mr. D. F. H. Naudé [*A*].

The Royal Incorporation of Architects in Scotland: Annual Convention 1951. The Annual Convention of the R.I.A.S. was held on 25 and 26 May in Glasgow. Proceedings began with the Annual General Meeting held in the Trades House attended by some 63 members, among them the President, R.I.B.A., Mr. A. Graham Henderson, A.R.S.A. At the General Meeting the bye-laws were amended to give the Council discretionary powers to remove from the Roll any member convicted of an indictable offence. Mr. Alex. Cullen, Inverness, was unanimously elected President for the ensuing year, and it was agreed to hold the next Convention in Edinburgh.

At the close of the meeting an opportunity was given to see the work of the winners and honourable mentions in the Prizes and Studentships competitions. Some 300 members and their guests were then given a civic reception by the Corporation of the City of Glasgow, and afterwards sat down to dinner under the Chairmanship of the President.

After the Toasts of 'The King' and 'The Founder' had been honoured, Lord Dean of Guild, Sir David Allan Hay, proposed the Toast of 'The Profession of Architecture.' In replying, the President, R.I.B.A., thanked Sir David Allan Hay for the tribute paid to the profession. The architects, he said, provided services of class and produced masterpieces which were available to the public without payment. This was a grave responsibility and the profession must produce only that which was best. That should be the ambition particularly now that the profession was protected by law. It was necessary to justify that protection by producing quality.

Bailie Patterson briefly replied and referred to Glasgow as one of the best planned cities in Great Britain, which was largely due to members of the architectural professsion. The dinner closed with a vote of thanks to the Chairman proposed by Mr. E. G. Wylie, President of the Glasgow Institute of Architects, and afterwards there was dancing.

On Saturday morning there were two alternative visits, one to buildings old and new in the City of Glasgow and the other to a preview of the Kelvin Hall Exhibition of Industrial Power. In the afternoon there were again alternative visits, one to Kippen House and Griblock Church, and the other to Loch Sloy.

Northern Architectural Association, Tees-side Branch: Annual Dinner and General Meeting

The Annual Dinner and General Meeting of the Tees-side Branch of the Northern Architectural Association was held in Stockton-on-Tees on 4 May, Mr. T. Victor Deas [*A*], Chairman of the Branch, who presided, welcomed Mr. Norval R. Paxton, M.C. [*F*], Vice-President, R.I.B.A., and Chairman of the Allied Societies' Conference, and members of the Northern Architectural Association.

Mr. Paxton addressed the gathering and presented the prizes to the successful Students in the Design and Sketching Competitions.

Mr. Paxton spoke of the increasing necessity and usefulness of the R.I.B.A. to members of the profession, especially through the Board of Architectural Education, and as a democratic organization through its Council and Allied Societies. He also spoke of the special usefulness of competitions to young architects.

Professor W. B. Edwards, M.A., B.Arch., M.T.P.I., [*F*], gave an excellent criticism of sets of sketches submitted by Students of the Branch in the annual competition for the Silver Jubilee Cup, and Mr. S. W. Milburn, M.B.E., M.C., T.D. [*F*], spoke of his long association with the Branch and of the friendly atmosphere in these gatherings among private architects and those employed by public authorities.

Berks, Bucks and Oxon Architectural Association: Annual General Meeting and Luncheon

The Berks, Bucks and Oxon Architectural Association held their Annual General Meeting and a luncheon at the Bull Hotel, Gerrards Cross, on Saturday, 28 April. The guests were received by Mr. J. L. Denman, J.P., F.S.A. [*F*], Vice-President, R.I.B.A.; Mr. T. Talfourd Cumming [*F*], President of the Association; and Mr. F. A. C. Maunder [*F*], County Architect of Buckinghamshire and President-elect, and Mrs. Maunder.

Approximately 120 members and guests attended, the principal guests being Mr. J. L. Denman, attending on behalf of the President, R.I.B.A.; Mr. C. D. Spragg, C.B.E., Secretary, R.I.B.A.; Miss B. Solly, Secretary of the Architects' Benevolent Society, and Major F. R. Law, Vice-Chairman of the Bucks Standing Joint Committee.

The President of the Association called on Mr. F. A. C. Maunder to address the gathering.

Mr. J. L. Denman then replied to the toast to the R.I.B.A., and Mr. Spragg proposed the toast to the Berks, Bucks and Oxon Architectural Association, which was replied to by Mr. T. Talfourd Cumming [*F*]. The toast of 'The Guests' was proposed by Mr. Desmond Hall [*A*], Vice-Chairman-elect of the Buckinghamshire Society of Architects, and Miss B. Solly responded.

After lunch the party split up into two and went on a tour of modern schools and Eton College.

York and East Yorkshire Architectural Society: Annual Dinner

The Annual Dinner and Dance of the York and East Yorkshire Architectural Society was held at the Royal Station Hotel, Hull, on Friday 6 April, when 120 Members and guests were present.

Mr. A. Graham Henderson, A.R.S.A., President, R.I.B.A., and Mrs. Henderson, together with Mr. A. Newton Thorpe [*F*], President of the Society, and Mrs. Thorpe, received all Members and guests before the dinner. After dinner a raffle was held, the proceeds being for the Architects' Benevolent Society Centenary Building Fund, and a profit of £15 was made. The raffle prizes were presented by Mrs. Henderson.

GENERAL NOTES

Week-end Course for Students: Buckinghamshire Society of Architects

The Buckinghamshire Society of Architects are holding a course for students from Friday 6 July to Sunday 8 July inclusive. While the course is primarily intended for students resident in Buckinghamshire, Berkshire, Oxfordshire, Northamptonshire, Bedfordshire and Huntingdonshire, students from other counties will be welcomed if there are vacancies. The course starts with tea at 4 p.m. on the Friday and ends with tea at the same time on Sunday. Items of the course include a film, practical work, sketching and water-colour parties, visits to historical buildings and modern schools, a social evening and a lecture on modern architecture by Mr. F. A. C. Maunder [*F*], County Architect of Buckinghamshire. Accommodation is in beautiful Missenden Abbey, Great Missenden. Drawing boards and sketching paper will be provided, but students should bring their own instruments, colours and brushes, as well as soap, towels and bathing costumes (for swimming in the lake).

Inclusive cost for students living or working in Buckinghamshire is £1 12*s*. For students in other counties it is £2 17*s*. 6*d*. Application should be made to a student's own County Education Officer for possible reimbursement of the difference.

Anyone wishing to attend the course should apply to T. P. Bolton [*A*], Deputy County Architect, County Offices, Aylesbury, Bucks, enclosing cheque or postal order. As there are only 35 vacancies, immediate application is advisable.

Berks, Bucks and Oxon Architectural Association: Oxford Summer School
Details of the Berks, Bucks and Oxon Architectural Association Summer School at Oxford in English Architectural History were given under 'Notes and Notices' in the March JOURNAL. Some enquiries have been received as to cost. This is £18 14*s*. inclusive—£14 14*s*. for the fortnight's residence in Magdalen College and £4 for the course.

As stated in the March JOURNAL, applications should be made to J. Brosgall, Secretary, Southern Regional Council for Further Education, Shire Hall, Reading.

The Conference: Keys found. A bunch of keys, including a car key, found at the Garden Party at Stormont Castle, has not been claimed. The owner should write to the Secretary, R.I.B.A.

R.I.B.A. Golfing Society
The annual match with the Institution of Civil Engineers Golfing Society was played on Thursday, 10 May. The architects won the singles in the morning by 12 matches to nil, and the foursomes in the afternoon by 3½ to 2½.

The R.I.B.A.G.S. was represented by: Sir Giles Gilbert Scott, O.M., R.A. [*F*], H. St. J. Harrison [*F*], W. R. F. Fisher [*F*], John Grey [*F*], G. Felix Wilson [*L*], R. S. G. Scott [*A*], A. E. Henson [*F*], Joseph Emberton [*F*], P. Hickey [*F*], F. Sutcliffe [*F*], W. D. White [*A*], E. H. Firmin [*A*].

Members' Column

This column is reserved for notices of changes of address, partnership and partnerships vacant or wanted, practices for sale or wanted, office accommodation, and personal notices other than for posts wanted as salaried assistants, for which the Institute's Employment Register is maintained.

APPOINTMENTS

Mr. W. Alexander [*A*] has taken up his appointment as Head of the Department of Building, The College of Commerce and Technology, Salmon Pastures, Warren Street, Sheffield, 4.

Mr. Stuart Bentley, A.M.T.P.I. [*F*] has taken up the appointment of Company Architect to the Dunlop Rubber Company, Fort Dunlop, Erdington, Birmingham, 24.

Mr. Leonard Howarth [*A*] has been appointed Deputy Chief Architect and Planning Officer to Glenrothes Development Corporation, Woodside, Glenrothes, by Markinch, Fife, and will be pleased to receive trade catalogues etc.

PRACTICES AND PARTNERSHIPS

Messrs. Geo. A. Boswell and Partners announce that from 1 June, 1951, the name of the firm will be changed to **Boswell, Mitchell and Johnston.** The partners are as before, **Geo. A. Boswell** [*F*], **Peter Mitchell,** A.R.I.A.S. and **N. R. J. Johnston,** A.M.T.P.I. [*F*]. They will continue to practise from 256 West George Street, Glasgow, C.2. (Douglas 1863/4.)

Mr. J. Challice [*F*], **(Messrs. R. M. Challice and Son)** has taken into partnership his Senior Assistant, **Mr. E. F. Sweetapple** [*A*]. The name of the firm remains unchanged.

Mr. Alfred H. Howard [*L*] of **Messrs. Arthur E. T. Mort and Partners,** Westminster Bank Chambers, Winchester, announces that he has taken **Mr. R. Dudley Utting** [*A*] into partnership with effect from 8 December, 1950. The name of the firm remains unchanged.

Mr. L. A. Howles [*A*] has commenced practice at 35 Park Street, Walsall (Walsall 4490) and will be pleased to receive trade catalogues etc.

Mr. Francis A. Kerr [*A*] is now practising from 6 Albert Road, Eccles, Manchester (Eccles 3933) and will be pleased to receive trade catalogues etc.

Mr. G. Forsyth Lawson [*L*] and **Mr. A. Cyril Cheek** [*A*] have terminated their partnership as from 28 February 1951. **Mr. G. Forsyth Lawson** has taken into partnership **Mr. Douglas Hilton** [*A*] as from 1 April 1951 and, the practice will continue at 30 Horse Fair, Banbury, Oxon, under the style of **G. Forsyth Lawson** and **Douglas Hilton.**

Mr. Arthur May [*F*] has retired from the firm of **Mauger and May** but remains the firm's Consultant. The partners now are **Paul V. Mauger,** M.T.P.I. [*F*], **Alick Gavin** [*A*], **George Mathers** [*A*] and **John Mitchell** [*A*], who are continuing to practice from Parkway Chambers, Welwyn Garden City and 25 Marylebone Road, London, N.W.1, under the style of **Paul Mauger and Partners.**

Mr. Kenneth Nealon [*A*] has removed to 28 Orchard Street, Bristol, 1. His telephone number (Bristol 20588) remains unchanged.

Mr. John Osborne, A.M.T.P.I. [*L*] announces that he has taken into partnership **Mr. J. P. B. Sweetnam** [*A*] and will practise from 107 High Street, Hungerford, Berks, under the style of **John Osborne and Sweetnam.**

Mr. R. Holroyd Rothwell [*L*] is now practising at 22 Broad Street, St. Helier, Jersey, C.I.

Mr. Fred Scatchard [*L*] retired from the firm of **Blenkinsopp and Scatchard,** Clifton Chambers, Park Street, Selby, Yorks, on 31 December 1950 and **Mr. J. H. Blenkinsopp** [*A*] has taken into partnership, with effect from 9 April 1951, **Mr. G. L. Thompson** [*A*], previously a senior assistant architect with the Essex County Council Architect's Department. The practice will continue under the style of **Blenkinsopp and Thompson.**

The title of the practice recently carried on by the late **Robert Sharp** [*F*], has been changed to **Robert Sharp and Son** and is being continued by **Mr. Alan G. Sharp** [*A*], who has taken into partnership **Mr. Spencer H. Lawrence** [*L*]. They will continue to practise from 13 Lower Belgrave Street, London, S.W.1. (SLOane 1763.)

Messrs. R. J. Sparrow and Partner will continue to practise at 7 North Hill, Colchester, under the style of **Sparrow and Clater** [*A*/*A*].

The Suffolk Group wishes to announce that **Mr. Felix Walter** [*F*] resigned from the partnership on 31 January 1951 and his temporary address is Hazeldene, Melton, Woodbridge, Suffolk (Woodbridge 663). By mutual arrangement between the remaining partners, a dissolution of the practice took place on 30 April 1951. From 1 May, **Mr. Eric Sandon** [*A*] is in partnership with **Mr. Douglas Harding** [*A*] practising under the style of **Sandon and Harding** [*A*/*A*], from Commercial Union Buildings, Prince's Street, Ipswich, Suffolk (Ipswich 55681). From the same date **Mr. Peter Berner,** A.M.T.P.I. [*A*] is in practice on his own account at 32 Cumberland Street, Woodbridge, Suffolk (Woodbridge 641). Trade catalogues etc. will be welcomed by both practices.

Mr. J. A. N. Whitty [*A*] has taken into partnership **Mr. J. A. R. Wilson** [*A*]. They will continue to practise as **Anthony Whitty and Wilson,** Gordon Buildings, Gordon Avenue, Salisbury, S. Rhodesia (Salisbury 24928).

Mr. Geoffrey C. Wilson [*F*], whose partnership in the firm of Messrs. Tatchell and Wilson, Bank Chambers, 32 Strand, W.C.2, was dissolved when Mr. Wilson joined the R.E. Services in 1940, has on retiring from the post of Assistant Chief Architect at the Ministry of Works resumed practice. He has joined **Mr. Alister MacDonald** [*F*], and is in charge at Aldine House, 10-13 Bedford Street, W.C.2. (TEMple Bar 0794). **Mr. E. H. Jamilly** [*A*] is in charge of Mr. MacDonald's Special Planning Office at 10 D'Arblay Street, W.1. (GERrard 9351).

CHANGES OF ADDRESS

Mr. N. Fort, A.M.T.P.I. [*A*] has removed to 31 Silverknowes Hill, Edinburgh, 4, and will be pleased to receive trade catalogues etc.

Mr. Robert J. Forsyth [*A*], Farm Buildings Advisory Officer for the West of Scotland Agricultural College, has removed from Blythswood Square to 65 West Regent Street, Glasgow, C.2. Trade catalogues and samples pertaining to farm structures (as opposed to farm dwellings) would be appreciated.

Mr. George Lowe [*A*] of 3a George Street, Croydon, has moved his offices to 4 High Street, Croydon. The telephone number (CROydon 0660) remains unchanged. He would be pleased to receive trade catalogues etc.

Merrs. Clifford Tee and Gale (Mr. E. L. Gale [*F*], **Mr. S. H. Fisk** [*A*], **Mr. R. G. Cox** [*F*] and **Mr. E. A. Day** [*F*]) of 153 Moorgate, London, E.C.2 and 43 Frederick Road, Edgbaston, Birmingham, have moved their London office to 5 Buckingham Palace Gardens, S.W.1.

PRACTICES AND PARTNERSHIPS WANTED AND AVAILABLE

Established practice in south-west for disposal. Box 41, c/o Secretary, R.I.B.A.

Associate (39) with sound experience seeks partnership or senior position leading thereto. West of England preferred, but not essential. Capital available. Box 42, c/o Secretary, R.I.B.A.

Associate, wishing to go abroad, offers for sale an old established practice in the West Riding of Yorkshire. Box 43, c/o Secretary, R.I.B.A.

Member (47) with wide experience in private and local government offices seeks partnership in old established town or country practice in Southern England. Box 47, c/o Secretary, R.I.B.A.

Associate desires partnership in southern half of England. Good general experience. Age 39. Single. English. Capital available. Box 48, c/o Secretary, R.I.B.A.

WANTED AND FOR SALE

Member urgently requires dumpy level and staff. Please state price and full particulars. Box 45, c/o Secretary, R.I.B.A.

Member wishes to purchase case or box of good quality pre-war drawing instruments. Box 46, c/o Secretary, R.I.B.A.

ACCOMMODATION

Fellow has some office accommodation to let in Kensington. Suitable for young practising member willing to give professional assistance in lieu of rent. Box 40, c/o Secretary, R.I.B.A.

Members require office accommodation in quiet locality at the end of the year. S.W.1 district of London preferred, but not essential. Floor area approximately 900 ft. super. Box 44, c/o Secretary, R.I.B.A.